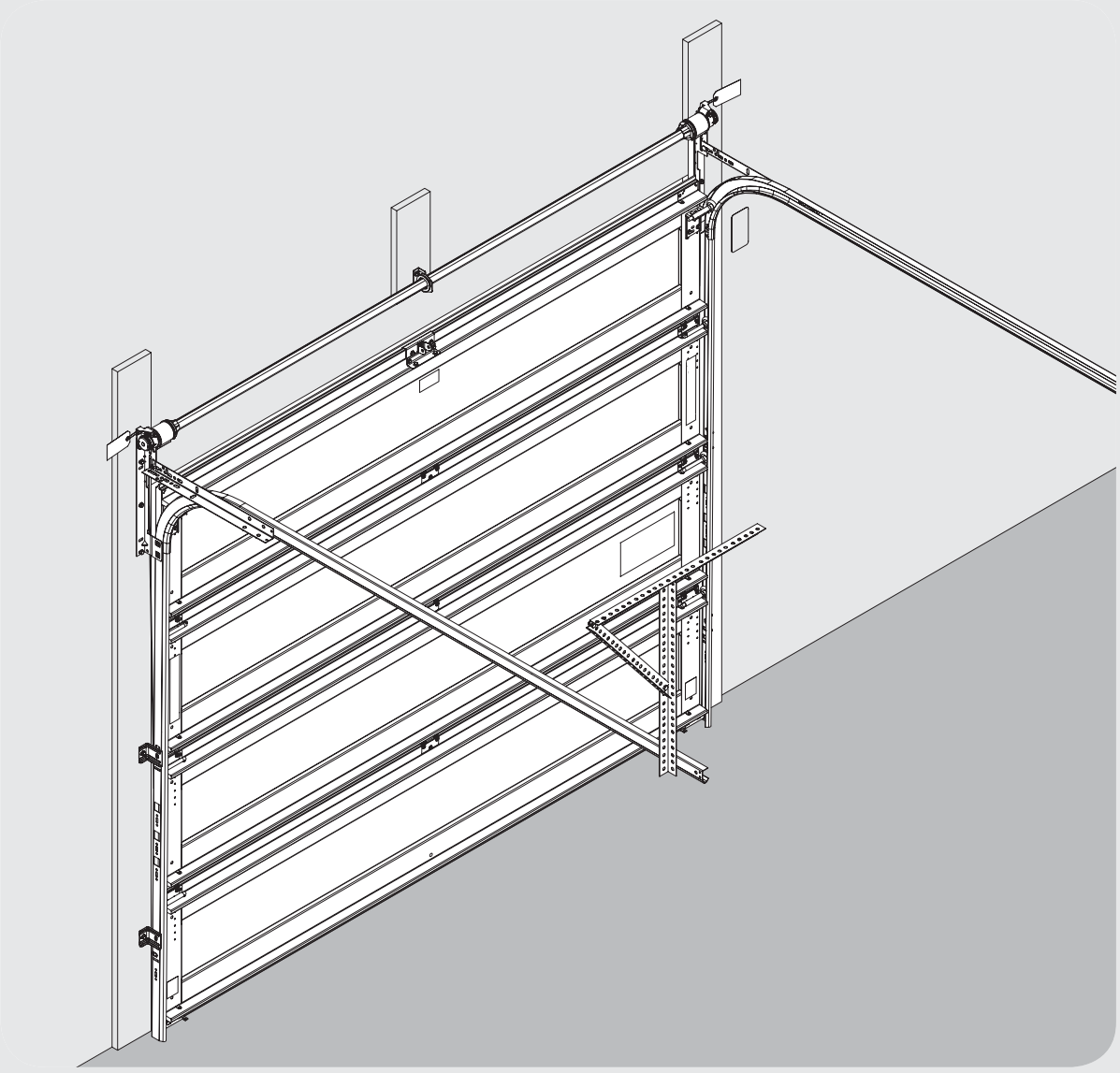
Wayne® Dalton

9100, 9400, AND 9600

TorqueMaster® - Single and Double Spring

Installation Instructions and Owner's Manual



IMPORTANT NOTICE!

Read these instructions carefully before attempting installation. If in question about any of the procedures, do not perform the work. Instead, have a qualified door agency do the installation or repairs.

Wayne-Dalton Corp.
P.O. Box 67
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www.wayne-dalton.com

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Definition of key words used in this manual:

⚠ WARNING

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SEVERE OR FATAL INJURY.

CAUTION: PROPERTY DAMAGE OR INJURY CAN RESULT FROM FAILURE TO FOLLOW INSTRUCTIONS.

IMPORTANT: REQUIRED STEP FOR SAFE AND PROPER DOOR OPERATION.

NOTE: Information assuring proper installation of the door.

⚠ WARNING READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A QUALIFIED DOOR AGENCY DO THE INSTALLATION OR REPAIRS.

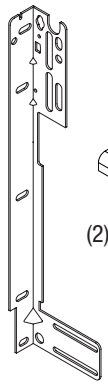
1. **READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.**
2. Wear protective gloves during installation to avoid possible cuts from sharp metal edges.
3. It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
4. Avoid installing your new door on windy days. Door could fall during the installation causing severe or fatal injury.
5. Doors 12'-0" wide and over should be installed by two persons, to avoid possible injury.
6. Operate door ONLY when it is properly adjusted and free from obstructions.
7. If a door becomes hard to operate, inoperative or is damaged, immediately have necessary adjustments and/or repairs made by a trained door system technician using proper tools and instructions.
8. DO NOT stand or walk under a moving door, or permit anybody to stand or walk under an electrically operated door.
9. DO NOT place fingers or hands into open section joints when closing a door. Use lift handles/gripping points when operating door manually.
10. DO NOT permit children to operate garage door or door controls. Severe or fatal injury could result, should the child become entrapped between the door and the floor.
11. Due to constant extreme spring tension, DO NOT attempt any adjustment, repair or alteration to any part of the door, especially to springs, spring brackets, bottom corner brackets, red colored fasteners, cables or supports. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.
12. On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position.
13. Top section of door may need to be reinforced when attaching an electric opener. Check door and/or opener manufacturer's instructions.
14. VISUALLY inspect door and hardware monthly for worn and or broken parts. Check to ensure door operates freely.
15. Test electric opener's safety features monthly, following opener manufacturer's instructions.
16. NEVER hang tools, bicycles, hoses, clothing or anything else from horizontal tracks. Track systems are not intended or designed to support extra weight.

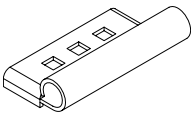
After installation is complete, fasten this manual near garage door.

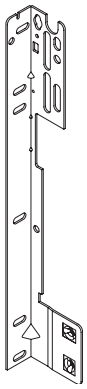
Please Do Not Return This Product To The Store. Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local yellow pages/business listings or go to the **Find a Dealer** section online at **www.wayne-dalton.com**

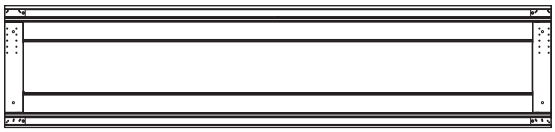
Package Contents

NOTE: DEPENDING ON THE DOOR MODEL, SOME PARTS LISTED WILL NOT BE SUPPLIED IF NOT NECESSARY. REAR SUPPORTS MAY OR MAY NOT BE INCLUDED WITH YOUR DOOR.

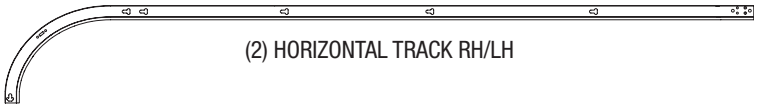

(2) FULLY ADJUSTABLE RH/LH FLAGANGLE (AS REQUIRED)


(2) TOP BRACKET SLIDE

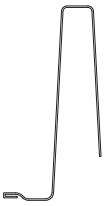

(2) QUICK INSTALL RH/LH FLAGANGLE (AS REQUIRED)

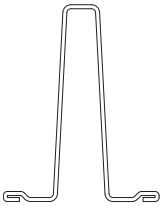

DOOR SECTIONS (AS REQUIRED)

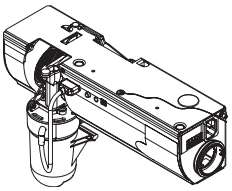
(1)TORQUEMASTER® SPRING TUBE

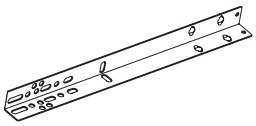

(2) HORIZONTAL TRACK RH/LH

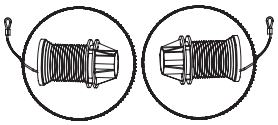
(2) VERTICAL TRACK RH/LH

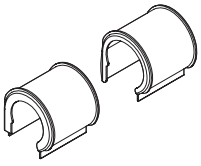

ASYMMETRICAL U-BAR (IF INCLUDED)

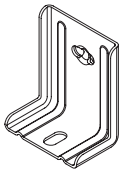

U-BAR (IF INCLUDED)

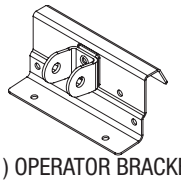

IDRIVE® OPERATOR (SOLD SEPARATELY)

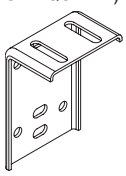

(2) HORIZONTAL ANGLE (21-15/16" OR 80") (AS REQUIRED)

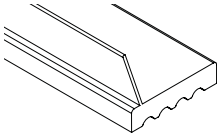

RIGHT AND LEFT CABLE DRUM ASSEMBLIES

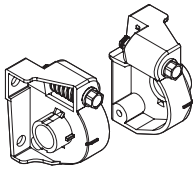

RIGHT & LEFT DRUM WRAPS

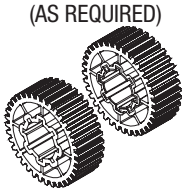

Q.I. JAMB BRACKETS (AS REQUIRED)

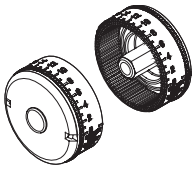

(1) OPERATOR BRACKET

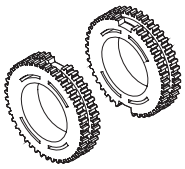

(2) TOP BRACKET BASE

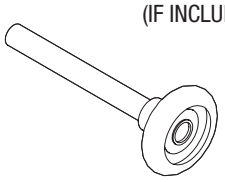

WEATHER SEAL & NAILS (IF INCLUDED)

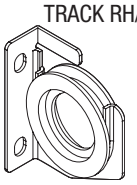

RIGHT & LEFT END BRACKETS


36 TOOTH WORM GEAR (AS REQUIRED)

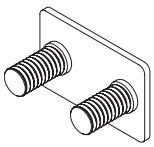

COUNTER COVERS (AS REQUIRED)

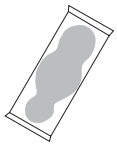

COUNTER GEAR (AS REQUIRED)


ROLLERS (AS REQUIRED)

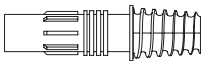

(1) CENTER BRACKET ASSEMBLY

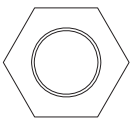
MANUAL

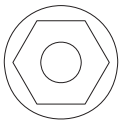

STUD PLATE (IF INCLUDED)

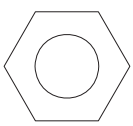

LUBRICATING OIL (AS REQUIRED)

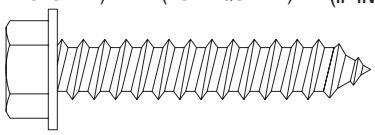
PULL ROPE (IF INCLUDED)

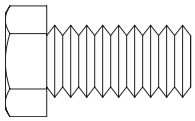

(1) LOOSE WINDING SHAFT (SINGLE SPRING ONLY)

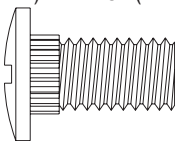

(1) 3/8" - 16 NYLOCK NUT (IF INCLUDED)

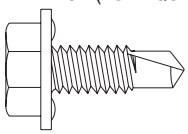

1/4"- 20 FLANGED HEX NUT (AS REQUIRED)

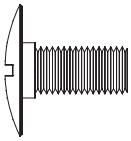

(2) 3/8"- 16 HEX NUT

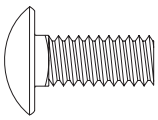

5/16" X 1 5/8" HEX HEAD LAG SCREW (AS REQUIRED)

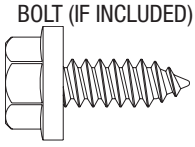

3/8"- 16 X 3/4" HEX HEAD BOLT (IF INCLUDED)

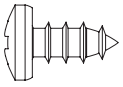

(2) 3/8"-16 X 3/4" TRUSS HEAD BOLT


1/4"-20 X 11/16" SELF DRILLING SCREW (AS REQUIRED)


(4) 1/4"-20 X 9/16" LARGE HEAD RIBBED TRACK BOLTS


(4) 1/4"-20 X 5/8" CARRIAGE BOLTS


1/4"-14 X 5/8" SELF TAPPING SCREW (AS REQUIRED)


(2) #12 X 1/2" PHILLIPS HEAD SCREWS

(2) #10 PHILLIPS HEAD SCREWS

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Door Section Identification

Tools Needed:

NOTE: This provides an alternative method for identifying your door sections/stack position.

Hinges are always pre-attached at the top of each section (except top section) and the hinges are stamped for identification, #1, #2, #3, and #4 (#4 only on five section doors). See view below. The stamp identifies the stacking sequence of the section. The sequence is always determined by #1 being the bottom section to #3 or #4 being the highest intermediate section. See views to the right. If the stamp on the end hinge is illegible, refer to the section side view illustration to the right.

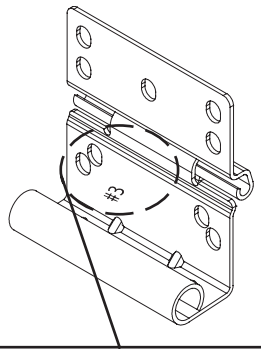
The section side view illustration shows the end hinge profile of all the sections, and can also be used in conjunction with identifying each sections.

The **BOTTOM SECTION** can be identified by a #1 end hinge, the factory attached bottom astragal, or by the bottom bracket warning labels on each end stile.

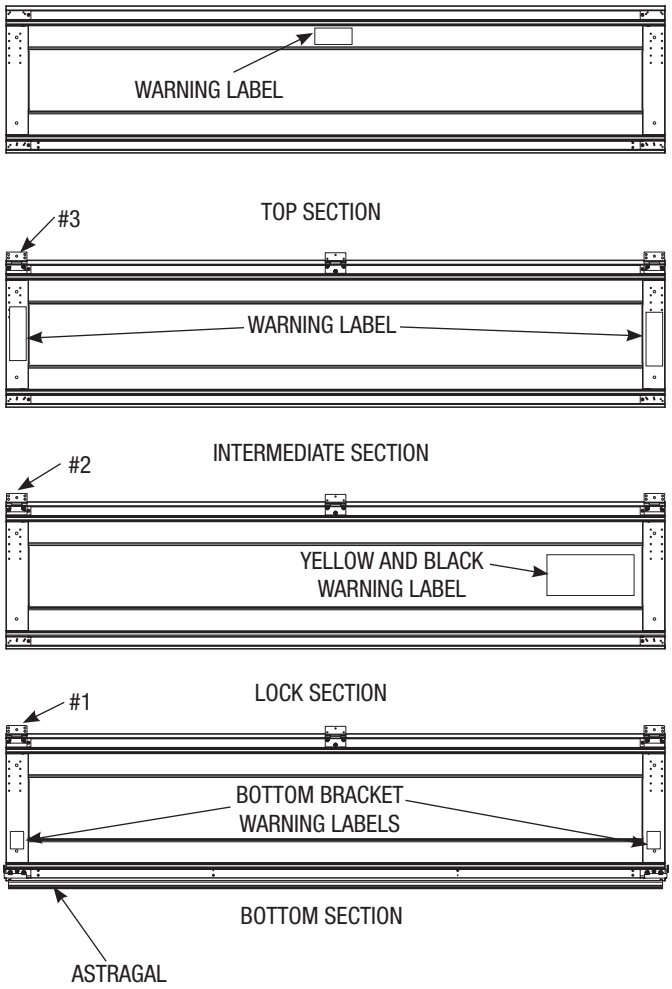
The **LOCK SECTION** can be identified by a #2 end hinge. Some sections may have a yellow and black warning label on the right side of the section.

The **INTERMEDIATE SECTION** can be identified by a #3 end hinge. Some sections may have a warning label attached to either the right or left of the section.
NOTE: #4 End hinges are used on the fourth section of five section doors.

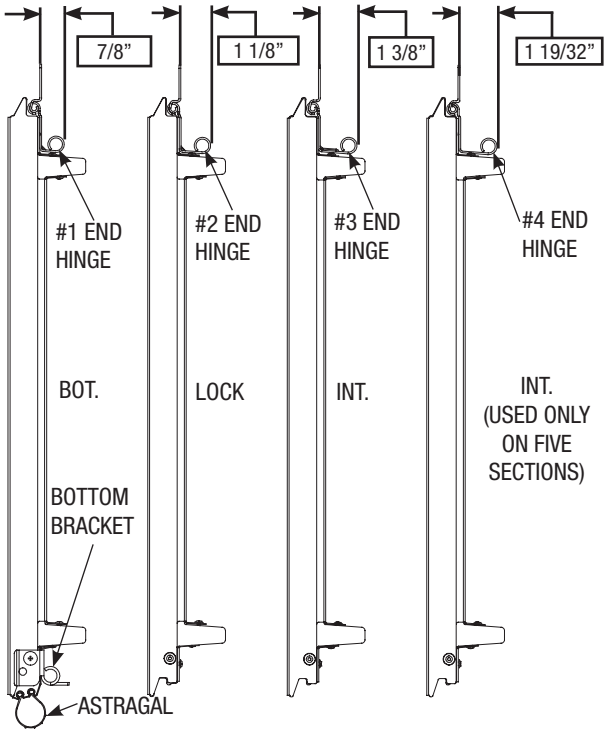
The **TOP SECTION** can be identified with no pre-installed end or center hinges on the section and the warning label attached in the upper middle of the section.



TYPICAL HINGE STAMPING LOCATION



SECTION SIDE VIEW



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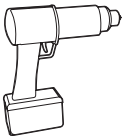
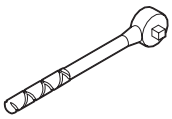
Tools Required


POWER DRILL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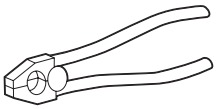
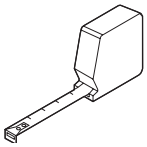

PLIERS/WIRE CUTTERS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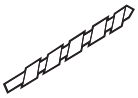
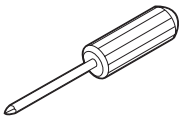
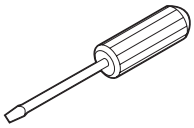
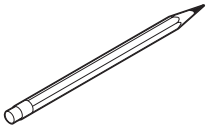

1/8", 3/16" DRILL BITS


PHILLIPS HEAD SCREWDRIVER


FLAT TIP SCREWDRIVER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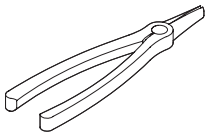
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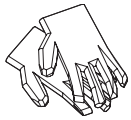
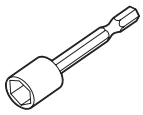
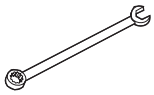
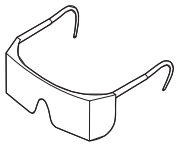

GLOVES

7/16", 1/2", 9/16" SOCKETS


7/16" SOCKET DRIVER


3/8", 7/16", 1/2", 9/16" WRENCHES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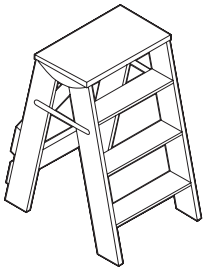
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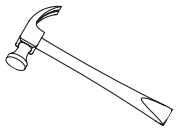
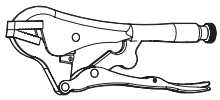
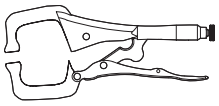
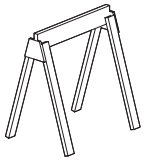

HAMMER


VICE GRIPS


VICE CLAMPS


(2) SAW HORSES

Removing An Old Door

⚠ WARNING

IF YOUR COUNTERBALANCE SYSTEM IS OTHER THAN THOSE MENTIONED, DO NOT ATTEMPT TO WORK ON IT, BUT HAVE A QUALIFIED DOOR AGENCY PERFORM THE WORK. OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

⚠ WARNING

DISCONNECT AND REMOVE ANY ELECTRIC OPENER PRIOR TO REMOVAL OF COUNTERBALANCE SYSTEMS TO PREVENT UNINTENDED DOOR OPERATION. OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

⚠ WARNING

COUNTERBALANCE SPRING TENSION MUST BE RELIEVED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING IT'S ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY.

⚠ WARNING

IF YOU HAVE BACK PROBLEMS DO NOT ATTEMPT THIS, OR SEVERE INJURY COULD RESULT

⚠ WARNING

REMOVING AN EXISTING DOOR CAN BE DANGEROUS. FOLLOW INSTRUCTIONS ON PAGES 6-10 "REMOVING AN OLD DOOR/PREPARING THE OPENING" CAREFULLY, OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

If you have an existing door, follow the instructions to identify which counterbalance removal is necessary. The process of removing an existing door begins by identifying it's counterbalance system. If you are not removing an existing door, proceed to PREPARING THE OPENING on page 10. Generally, you will find three (3) types of counterbalance systems: Extension Spring, Wayne-Dalton® exclusive TorqueMaster® and Torsion spring counterbalance systems.

For more technical information regarding the opening preparation, installation and use of your garage door and opener, you can go to www.dasma.com and click on Publications and then Technical Data Sheet.

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P1

Torsion Spring Removal For Standard Lift

Tools Needed:

Approved Winding Bars

3/8" Wrench

Vice Clamp

Recommended tools from page 5

⚠ WARNING

FAILURE TO USE APPROVED WINDING BARS CAN CAUSE SPRING ENERGY TO BE RELEASED SUDDENLY, RESULTING IN SEVERE OR FATAL INJURY.

⚠ WARNING

COUNTERBALANCE SPRING TENSION MUST BE RELIEVED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING IT'S ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY.

Do not release the torsion spring tension unless you are qualified and experienced door technician, but have a professional door agency release the tension.

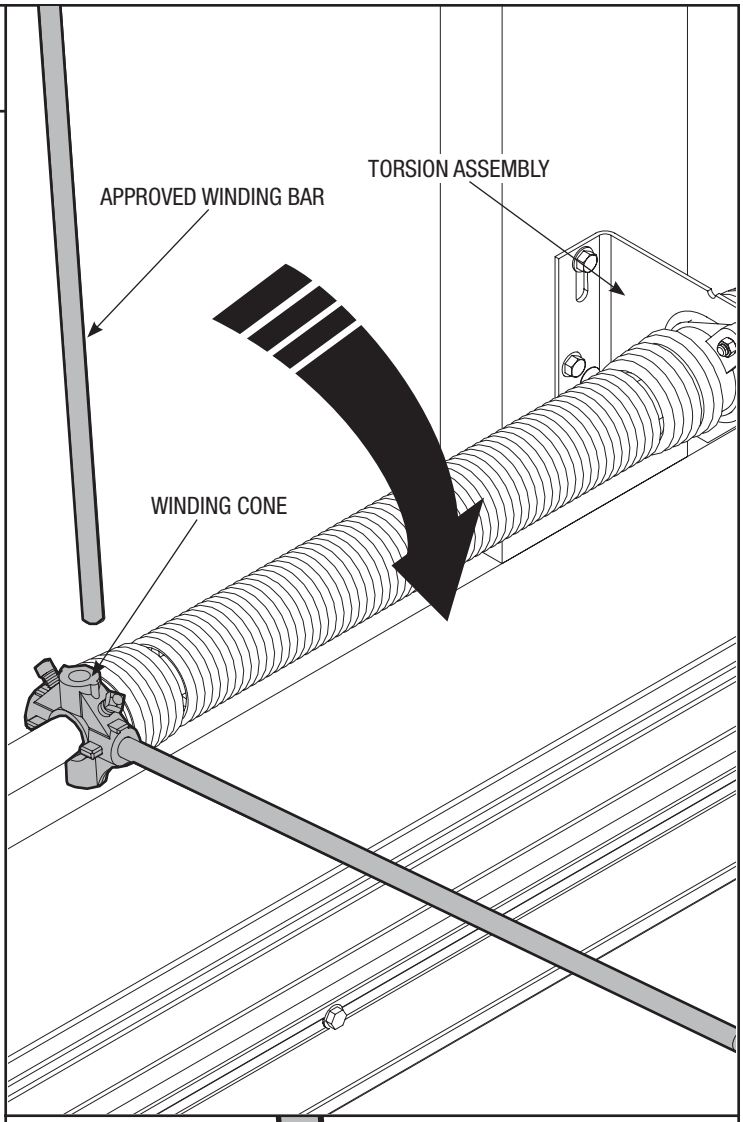
Step 1: Close the door and place vice clamps to the back legs on both vertical tracks, above the third roller to prevent the door from lifting as you unwind the springs. Use only approved winding bars available from your dealer. Do not use undersized steel rods, screw drivers or anything else to unwind the springs. Position the ladder just off to the side of the winding cone. The winding cone should be easy to reach without putting your body directly in front of it.

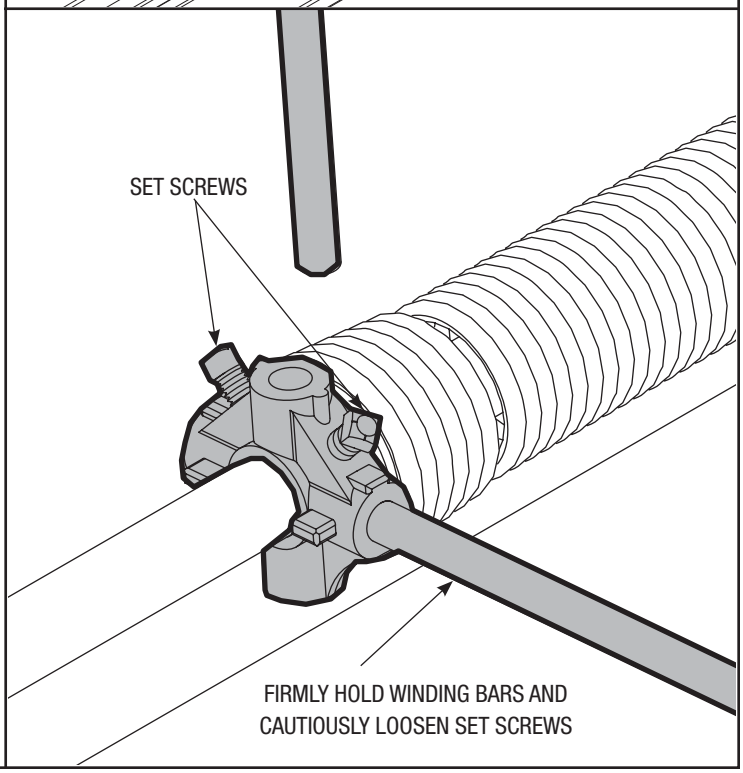
Step 2: Insert a winding bar into one of the holes in the winding cone. Exert upward pressure. Using caution, loosen the two (2) set screws in the winding cone. Be prepared to support the full torsional force of the spring when the set screws are loosened.

Step 3: Once set screws are loose, slowly and carefully lower the winding rod until it rests against the door. Insert other winding bar into the upper hole. Push up and remove lower bar. Carefully lower upper winding bar until it rests against the door. Repeat process until all tension is relieved. If your door is equipped with two (2) torsion springs, follow the same procedure to relieve tension on the second spring.

Step 4: Remove vice clamps from tracks, unbolt torsion shaft assembly and remove from work area.

NOTE: Continue with "P4" on page 9 after completing this step.





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P2

TorqueMaster® Spring Removal

Tools Needed:

Recommended tools from page 5

A TorqueMaster® spring system can be identified by the end brackets. For single spring applications, the right hand end bracket will always have a drive gear, counter gear, counter cover, and a winding bolt head. The left hand end bracket will have no gears, counter cover, or winding bolt head. The hole for the winding bolt head will be plugged.

For double springs, both the right hand and left hand end brackets will always have a drive gear, counter gear, counter cover and a winding bolt head.

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

Step 1: If you have a black counter cover: Place a mark on the drive gear tooth and an adjacent mark on the right hand end bracket (Fig. 1). Loosen the lock nut 1/4 turn using a 7/16" wrench and continue with Step 2.
If you have a gray counter cover: Loosen the lock nut 1/4 turn using a 7/16" wrench and continue with Step 2.

Step 2: Using an electric drill (High torque / gear reduced to 1300 rpm preferred) with a 7/16" hex head driver, unwind the right hand winding bolt head counterclockwise (Fig. 2) and count the number of turns the mark on the drive gear passes the adjacent mark on the end bracket. Referencing the chart below, by door height, stop unwinding the spring once the counted turns have reached the listed number of turns.

- 6'-0" Door Height = 14 turns
- 6'-3" Door Height = 14 1/2 turns
- 6'-5" Door Height = 15 turns
- 6'-6" Door Height = 15 turns
- 6'-8" Door Height = 15 1/2 turns
- 6'-9" Door Height = 15 1/2 turns
- 7'-0" Door Height = 16 turns
- 7'-3" Door Height = 16 1/2 turns
- 7'-6" Door Height = 17 turns
- 7'-9" Door Height = 17 1/2 turns
- 8'-0" Door Height = 18 turns

CAUTION: DO NOT USE IMPACT GUN TO UNWIND SPRINGS.

IMPORTANT: DO NOT REFERENCE THE COUNTER COVER WHEN COUNTING THE NUMBER OF TURNS BEING UNWOUND ON THE SPRING, BUT FOLLOW THE INSTRUCTIONS ABOVE.

Step 3: Verify that spring tension has been released by pulling the counterbalance cable on the right hand cable drum away from the header (Fig. 3). If spring tension has been released, the cable will be loose. In addition, the TorqueMaster®

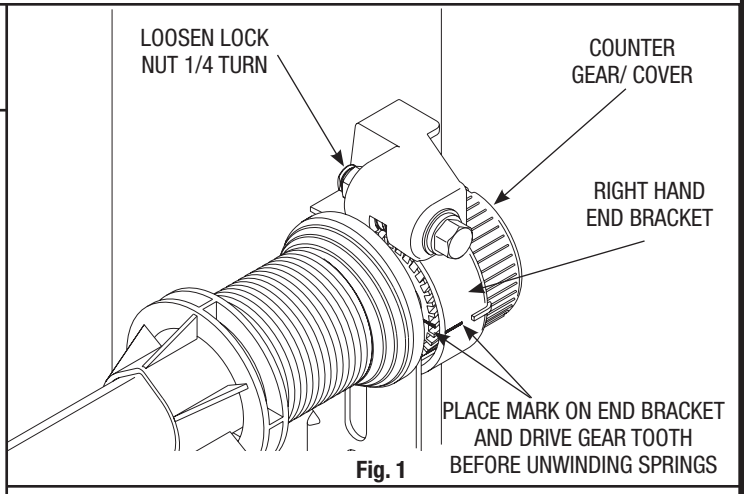
LOOSEN LOCK NUT 1/4 TURN
COUNTER GEAR/ COVER
RIGHT HAND END BRACKET
PLACE MARK ON END BRACKET AND DRIVE GEAR TOOTH BEFORE UNWINDING SPRINGS

Fig. 1

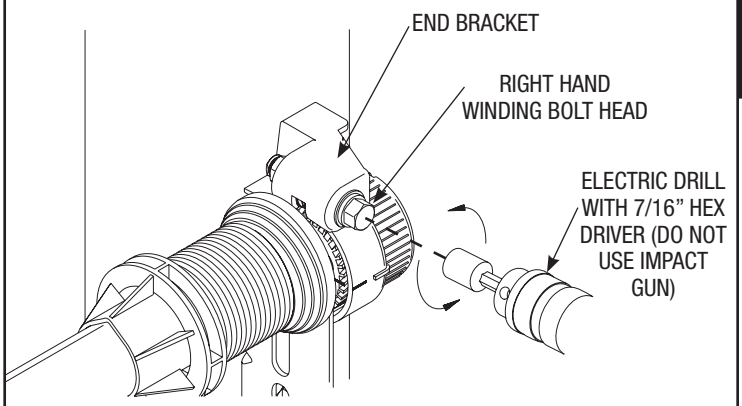

Fig. 2

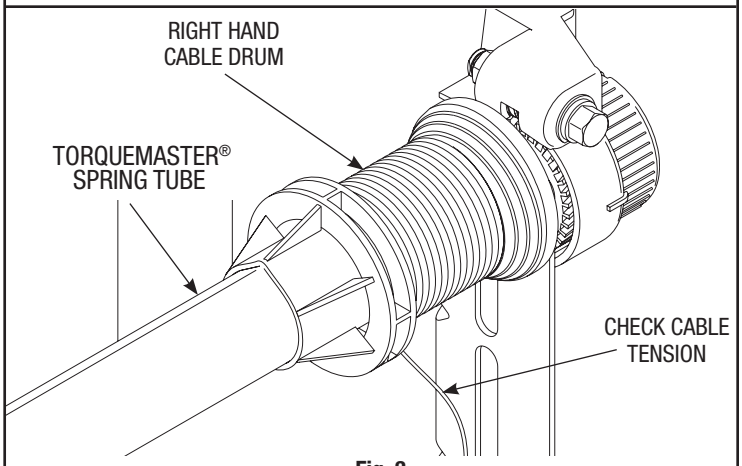

Fig. 3

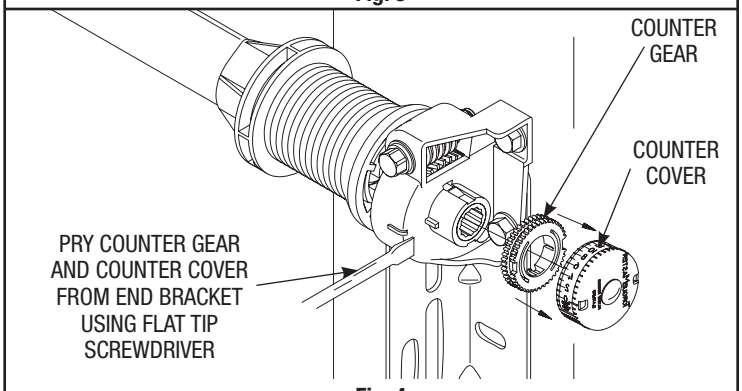

Fig. 4

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TorqueMaster® Spring Removal continued...

Tools Needed:

Recommended tools from page 5

Spring tube should be free to rotate in either direction. If the counterbalance cable is still taut and the TorqueMaster® spring tube is difficult to rotate, that is an indication that spring tension still exists on the left hand spring. Repeat Steps 1 and 2 for releasing spring tension on the left hand side.

Step 4: Using a flat tip screwdriver, pry the counter gear and counter cover from the right hand end bracket (Fig. 4 on previous page). Discard the counter gear and counter cover. On double spring applications, repeat for left hand side.

Step 5: Remove the upper 5/16" x 1-5/8" lag screw from the right hand end bracket (Fig. 5). Attach locking pliers to the upper portion of the end bracket and hold the housing steady while removing the lower 5/16" x 1-5/8" lag screw and #10 x 1/2" phillips head screw from the end bracket (Fig. 6).

Step 6: Holding the right hand end bracket steady with locking pliers, carefully pry the end bracket and drive gear off the winding shaft using a flat tip screwdriver (Fig. 7).

CAUTION: THE WINDING SHAFT MAY ROTATE WHEN REMOVING THE END BRACKET AND DRIVE GEAR.

Step 7: Repeat Step 4 for the left hand side. Holding the left hand end bracket steady with locking pliers, carefully pry the end bracket off the winding shaft using a flat tip screwdriver (Fig. 7).

Step 8: Remove the two (2) lag bolts attaching the center bracket assembly to the header board (Fig. 8).

Step 9: Lift the right hand side of the TorqueMaster® spring tube and slide the cable drum off. Realign the groove in the winding shaft with the radial notch in the flagangle and drape the counterbalance cable with drum over the flagangle. Lift the left hand side of the TorqueMaster® spring tube and slide the cable drum and winding shaft off (Fig. 9). Drape the counterbalance cable with drum over the flagangle. Lift the TorqueMaster® spring assembly off the flagangles and out of the doorway. Unhook the counterbalance cables from the bottom brackets and remove all parts from the work area.

NOTE: The cable drums may be difficult to remove. If so, twist the cable drum to aid in removal.

NOTE: Continue with "P4" on page 9 after completing this step.

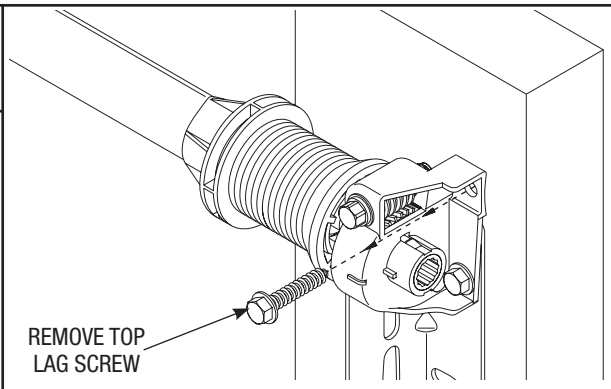

Fig. 5

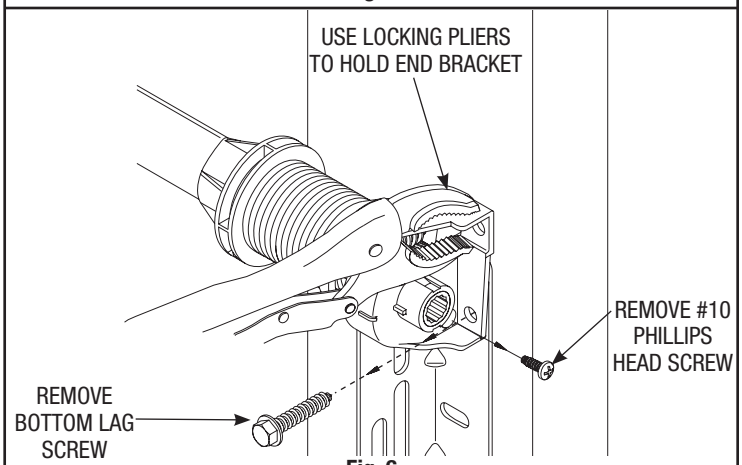

Fig. 6

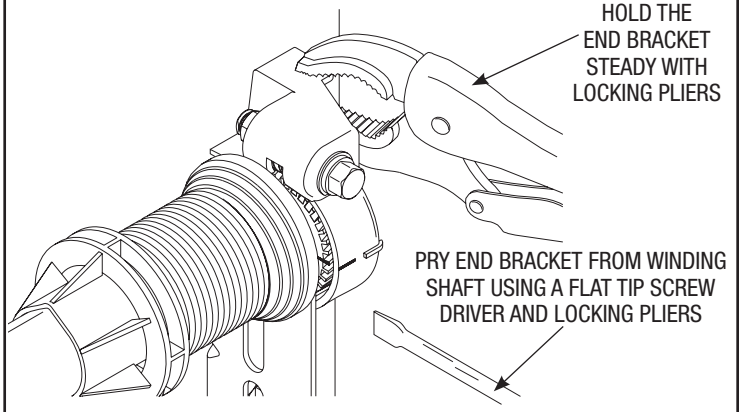

Fig. 7

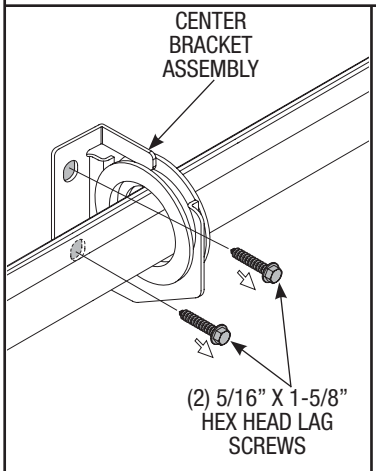

Fig. 8

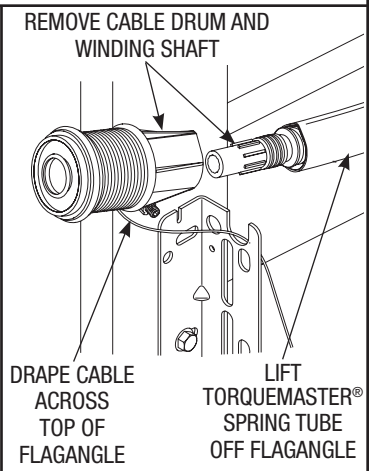

Fig. 9

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P3

Extension Spring Removal

Tools Needed:

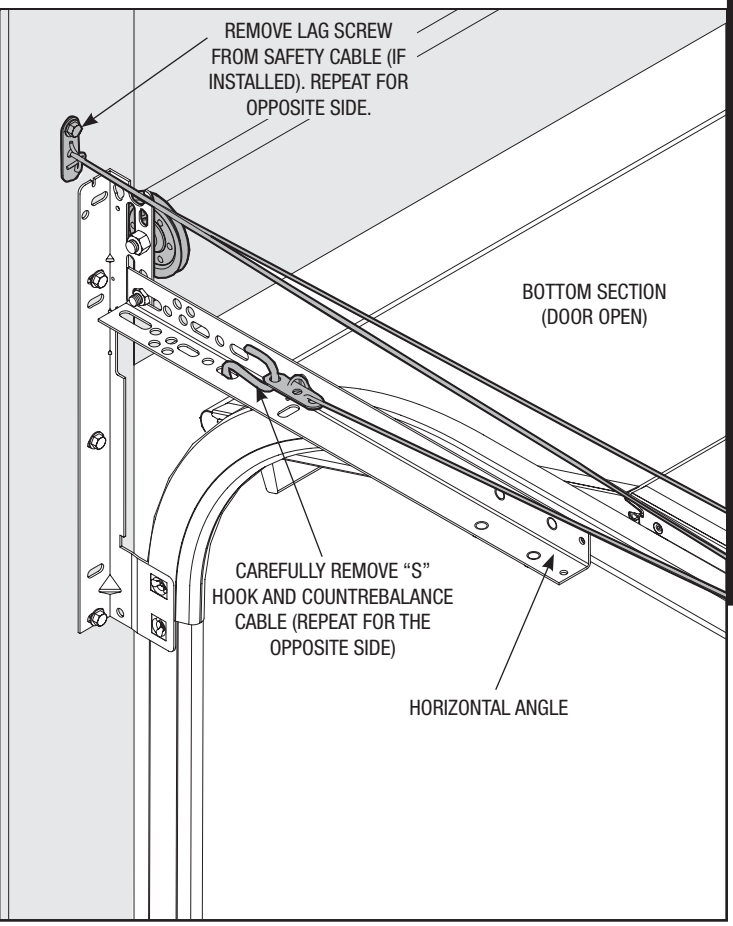
Recommended tools from page 5

Step 1: Raise the door to the fully open position and place vice clamps to the back legs of both vertical tracks, below the bottom rollers to prevent the door from falling. By opening the door you release most of the spring tension. Carefully unfasten the S-hook from the horizontal angle. Remove cable, sheave and extension spring. Repeat for the other side. If safety cables are running through the extension springs, remove them also. Remove parts from work area.

Step 2: Holding door in the open position, remove the vice clamps, be prepared to support the entire weight of the door. Garage doors can weigh 200-400 pounds.

With assistance, carefully lower the door, by grasping the door firmly by it's lift handles. Do not place fingers or hands near joints, between sections, or between bottom of door and floor. Otherwise, severe injury could result.

NOTE: Continue with "P4" on page 9 after completing this step.


REMOVE LAG SCREW FROM SAFETY CABLE (IF INSTALLED). REPEAT FOR OPPOSITE SIDE.
BOTTOM SECTION (DOOR OPEN)
CAREFULLY REMOVE "S" HOOK AND COUNTREBALANCE CABLE (REPEAT FOR THE OPPOSITE SIDE)
HORIZONTAL ANGLE

P4

Removing the Old Door

Tools Needed:

Recommended tools from page 5

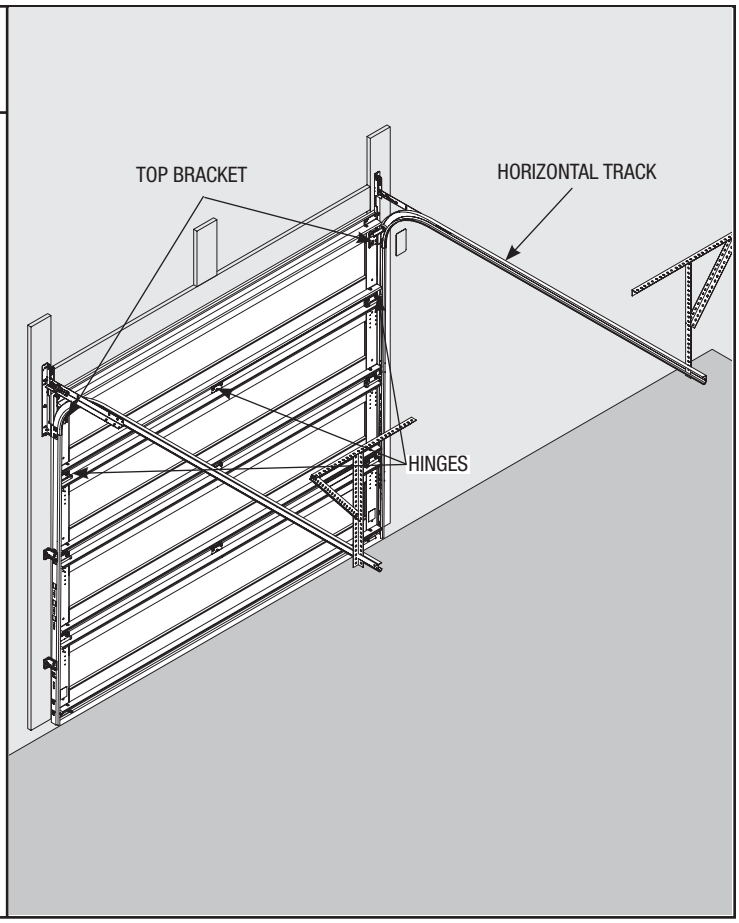
Having removed the counterbalance system, the door can now be disassembled.

Start by first removing the top row of center hinge(s).

With assistance, hold the top section to keep it from falling and remove the top brackets. With assistance, lift the top section out of the opening and remove it from the work area. Repeat for all remaining sections.

After door is disassembled, unbolt both track assemblies from the jambs and remove all material from the work area. You can neatly dispose of the old door by placing it in the carton of your new door.

Clean up area and complete "Preparing the Opening" "P5" on page 10 before installing the new door.



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P5

Preparing the Opening

Tools Needed:

Recommended tools from page 5

⚠ WARNING FAILURE TO SECURELY ATTACH A SUITABLE MOUNTING PAD TO STRUCTURALLY SOUND FRAMING COULD CAUSE SPRINGS TO VIOLENTLY PULL MOUNTING PAD FROM WALL, RESULTING IN SEVERE OR FATAL INJURY.

If you just removed your existing door or you are installing a new door, complete all steps in PREPARING THE OPENING.

For detailed technical information regarding the opening preparation, refer to the DASMA Technical Data Sheet TDS #161 Connecting Garage Door Jambs to Building. Framing located at www.dasma.com.

The inside of your garage door opening should be framed with wood jambs and header. It is recommended that 2" x 6" lumber be used. The jambs must be plumb and the header level. The jambs should extend a minimum of 12" (305 mm) above the top of the opening for TorqueMaster® counterbalance systems. For low headroom applications, the jambs should extend to the ceiling height. Minimum side clearance required, from the opening to the wall, is 3-1/2".

IMPORTANT: CLOSELY INSPECT JAMBS, HEADER AND MOUNTING SURFACE. ANY WOOD FOUND NOT TO BE SOUND, MUST BE REPLACED.

The jambs and header must be securely fastened to sound framing members. Do not place jambs and header over drywall, paneling, etc. Heads of fasteners must be flush or below jamb and header surface, so they do not interfere with installation or operation of new door.

TorqueMaster® counterbalance systems, a suitable mounting surface must be firmly attached to the wall, above the header at the center of the opening.

The mounting surface must be 2" x 6" lumber minimum (Select southern yellow pine lumber. Do not use lumber marked as spruce-pine-fur or SPF).

The mounting surface must be securely attached to block or concrete wall with four (4) 3/8" masonry anchors or four (4) 5/16" x 4" lag screws for a wood structure.

NOTE: Drill a 3/16" pilot hole in the mounting surface to avoid splitting the lumber. Do not attach the mounting surface with nails.

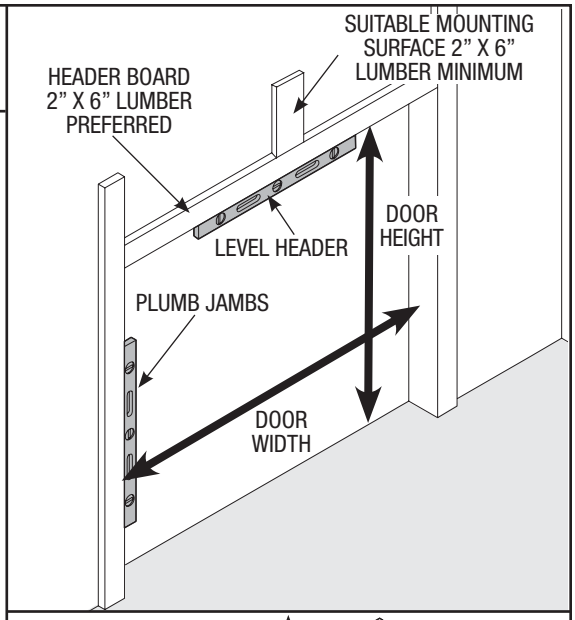
WEATHER SEAL: Fit weather seal (may not be included) to fit the jambs and header. Align the edge of the weather seals an 1/8" to 1/4" inside the edge of the opening. Temporarily nail the weather seal to the jambs to keep the bottom section from falling out of the opening during installation.

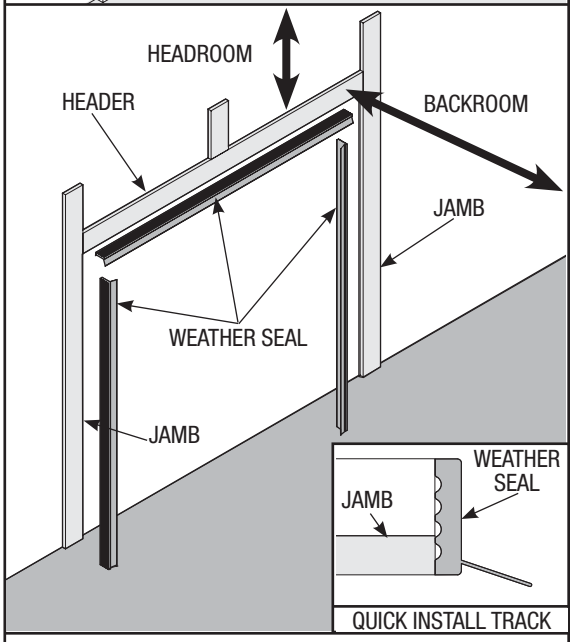
NOTE: Do not permanently attach weather seal to the jambs at this time. Permanent installation will be done in Step 30.

HEADROOM REQUIREMENT: Headroom is defined as the space needed above the top of the door for tracks, springs, etc. to allow the door to open properly. If the door is to be motor operated, 2-1/2" (64 mm) of additional headroom is required.

NOTE: 6" LHR Conversion Kit is available for 12" Radius only. Contact your local Wayne-Dalton® dealer.

BACKROOM REQUIREMENT: Backroom is defined as the distance needed from the opening back into the garage to allow the door to open fully.





HEADROOM REQUIREMENT

TRACK TYPE	TorqueMaster®
15" Radius track	11-3/4" (299 mm)
12" Radius track	10-1/2" (267 mm)
6" LHR Kit†	6" (152 mm)

BACKROOM REQUIREMENT

DOOR HEIGHT	TRACK	MANUAL LIFT	MOTOR OPERATED
6'5", 6'6", 7'0"	12", 15" Radius	98" (2489 mm)	120" (3048 mm)
7'6", 8'0"	12", 15" Radius	110" (2794 mm)	132" (3353 mm)

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Installation

IMPORTANT: READ INSTRUCTIONS TITLED “P4” “REMOVING THE OLD DOOR” ON PAGE 9 AND “P5” “PREPARING THE OPENING” ON PAGE 10 BEFORE ATTEMPTING DOOR INSTALLATION.

IMPORTANT: STAINLESS STEEL OR PT2000 COATED LAG SCREWS MUST BE USED WHEN INSTALLING CENTER BEARING BRACKETS, END BRACKETS, JAMB BRACKETS, OPERATOR MOUNTING/SUPPORT BRACKETS AND DISCONNECT BRACKETS ON TREATED LUMBER (PRESERVATIVE-TREATED). STAINLESS STEEL LAG SCREWS ARE NOT NECESSARY WHEN INSTALLING PRODUCTS ON UN-TREATED LUMBER.

NOTE: It is recommended that 5/16” x 1-5/8” lag screws be pilot drilled using a 3/16” drill bit, and 1/4” x 2” lag screws and 1/4” x 1-1/2” lag screws be pilot drilled using a 1/8” drill bit, prior to fastening.

1

Attaching Quick Install Flag Angle to Vertical Track

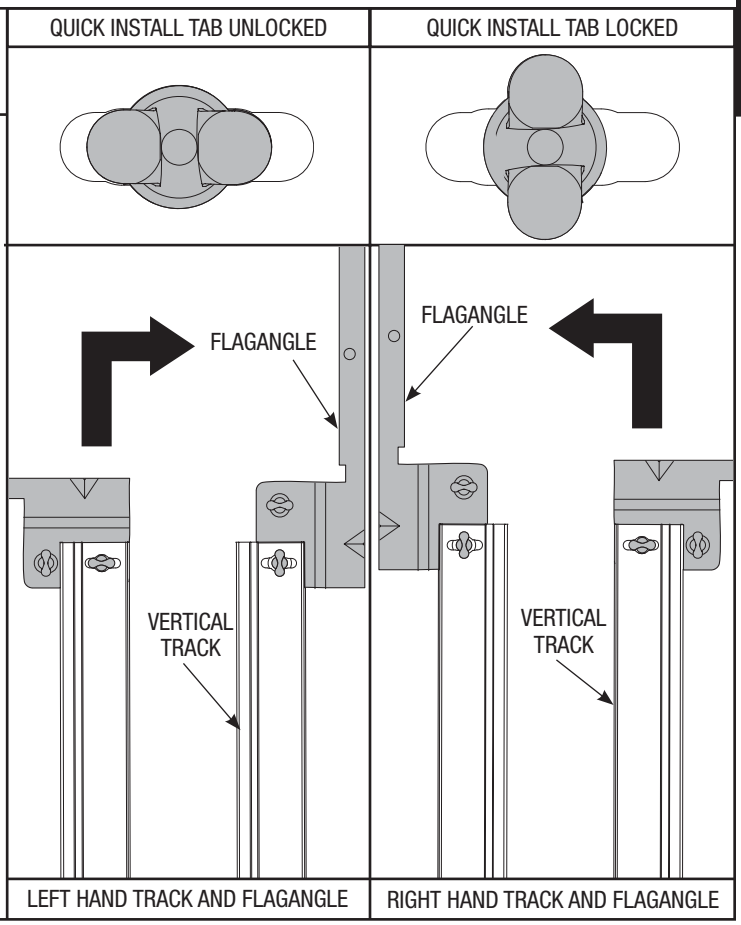
Tools Needed:

None

NOTE: If you have fully adjustable flagangle, skip this step and complete Step 2.

Place the lower quick install tab of the flagangle in the quick install feature of the vertical track. Give the flagangle 1/4 turn to lock in place. Repeat for other side.

NOTE: After completing this step, continue with Step 3.



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2 Attaching Fully Adjustable Flagangle to Vertical Track

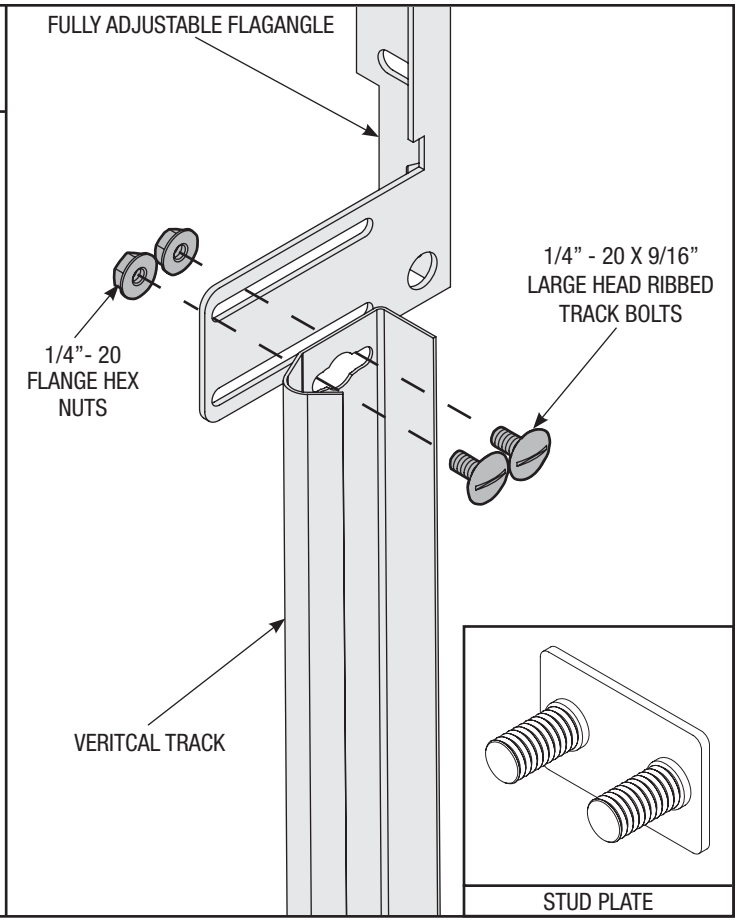
Tools Needed:

None

NOTE: If quick install flagangle was installed in Step 1, skip this step and continue with Step 3. If not, complete this step.

Hand tighten the flagangle to the vertical track using (2) 1/4" - 20 x 9/16" large head ribbed track bolts (or stud plate if included) and (2) 1/4" - 20 flange hex nuts.

Secure the flange nuts after flagangle spacing is complete (Step 13).



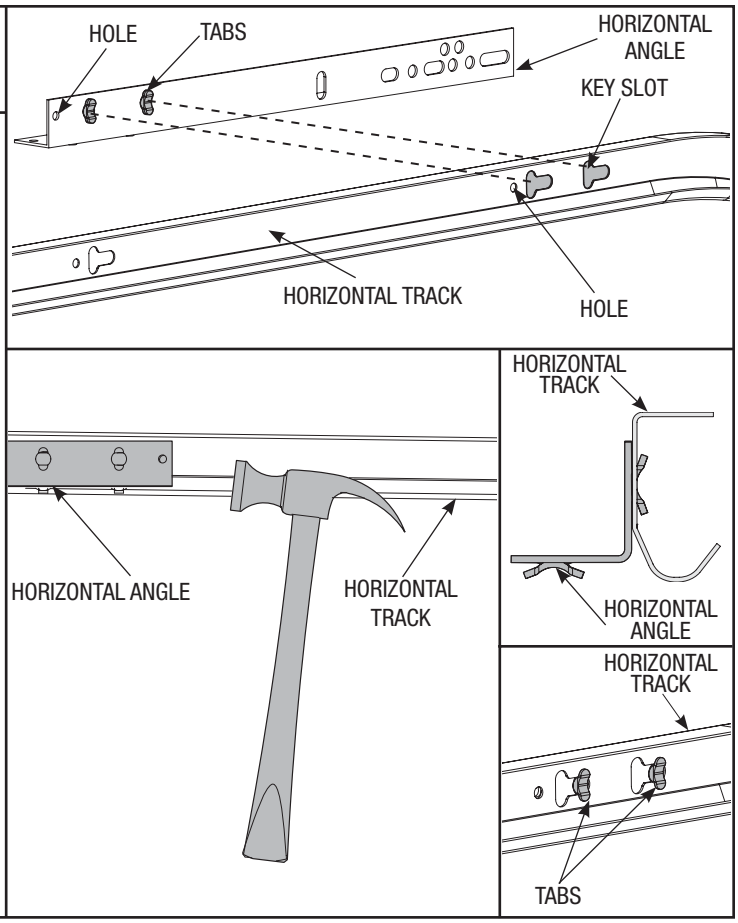
3 Horizontal Angle

Tools Needed:

Hammer

Position the horizontal angle as shown. Place tabs of horizontal angle in the key slot of horizontal track. Using a hammer, tap the horizontal angle towards the curved end of the track until the hole in track and angle are aligned. Set tracks aside.

NOTE: For larger doors, a full length horizontal angle may or may not be spot welded to the horizontal track. If the horizontal angle is not welded, the horizontal angle will be installed as shown.



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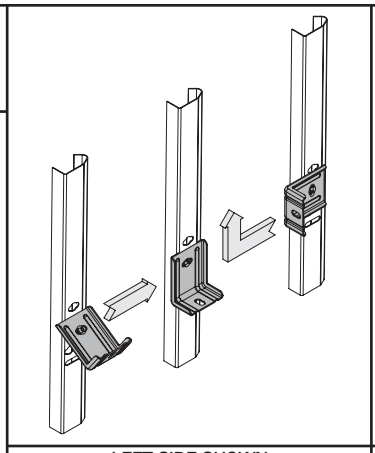
4 Installing Q.I. Jamb Brackets

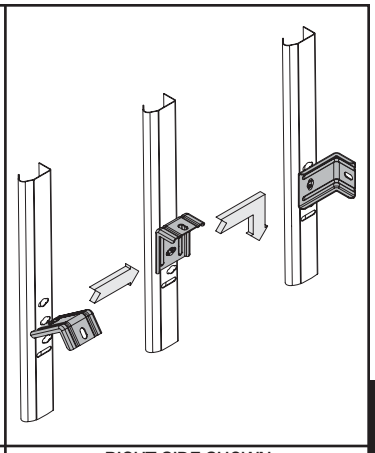
Tools Needed:

None

Measure the length of the vertical tracks. Using the jamb bracket schedule, determine the placement of the jamb brackets for your door height and track type. To install the jamb brackets, align the twistlock tab on the quick install jamb bracket with the quick install feature in the track and turn the bracket perpendicular to the track so the mounting flange is toward the back (flat) leg of the track.



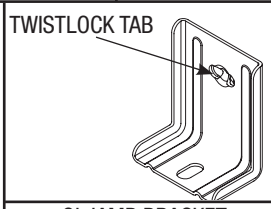
LEFT SIDE SHOWN



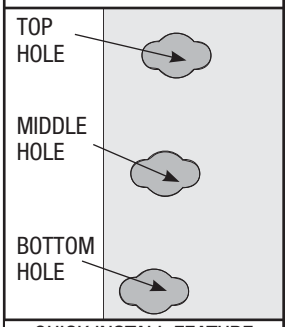
RIGHT SIDE SHOWN

JAMB BRACKET SCHEDULE

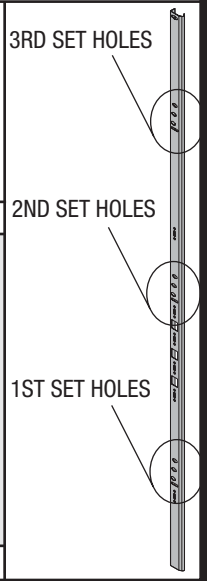
DOOR HEIGHT	1ST SET		2ND SET		3RD SET	
	JAMB BKT	POSITION	JAMB BKT	POSITION	JAMB BKT	POSITION
6'0" 64" TRACK (1626 mm)	QIJB - 5	MIDDLE	QIJB - 6	BOTTOM	NOT APPLICABLE	
6'5" 69" TRACK (1753 mm)	QIJB - 3	BOTTOM	QIJB - 6	MIDDLE	NOT APPLICABLE	
6'8" 72" TRACK (1829 mm)	QIJB - 3	BOTTOM	QIJB - 6	MIDDLE	NOT APPLICABLE	
7'0" 76" TRACK (1930 mm)	QIJB - 3	BOTTOM	QIJB - 7	TOP	NOT APPLICABLE	
7'3" 79" TRACK (2007 mm)	QIJB - 3	BOTTOM	QIJB - 5	BOTTOM	QIJB - 6	BOTTOM
7'6" 82" TRACK (2083 mm)	QIJB - 3	BOTTOM	QIJB - 5	BOTTOM	QIJB - 6	BOTTOM
7'9" 85" TRACK (2159 mm)	QIJB - 3	BOTTOM	QIJB - 5	BOTTOM	QIJB - 6	BOTTOM
8'0" 4 SECTIONS 88" TRACK (2235 mm)	QIJB - 3	MIDDLE	QIJB - 6	TOP	QIJB - 7	MIDDLE
8'0" 5 SECTIONS 88" TRACK (2235)	QIJB - 3	BOTTOM	QIJB - 7	TOP	QIJB - 8	TOP



QI JAMB BRACKET



QUICK INSTALL FEATURE



5 Drums

Tools Needed:

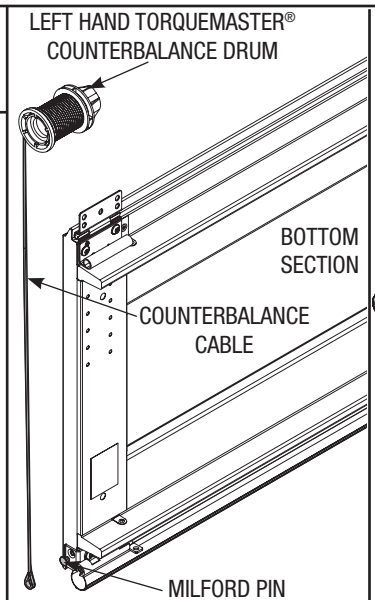
None

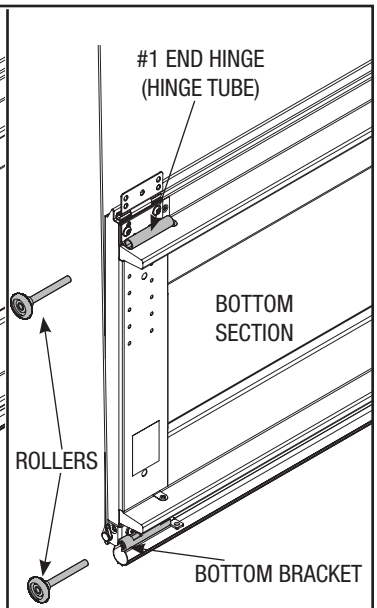
IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

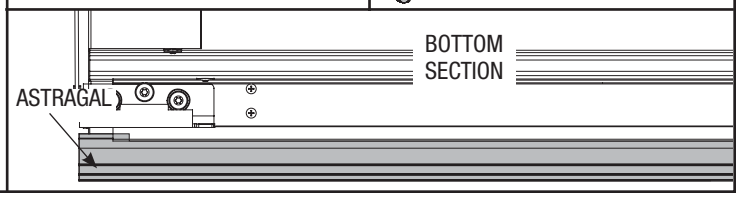
NOTE: For door section identification see page 4.

TorqueMaster® counterbalance drums are marked right and left hand. Uncoil the counterbalance cables and make sure you place the right hand cable loop on the right hand milford pin and place the left hand cable loop on the left hand milford pin. Insert a roller into bottom bracket of the bottom section and insert another roller at #1 end hinge at the top of the bottom section. Repeat for other side.

NOTE: Verify astragal (bottom seal) is aligned with door section. If there is more than 1/2" excess astragal on either side, trim astragal even with door section.







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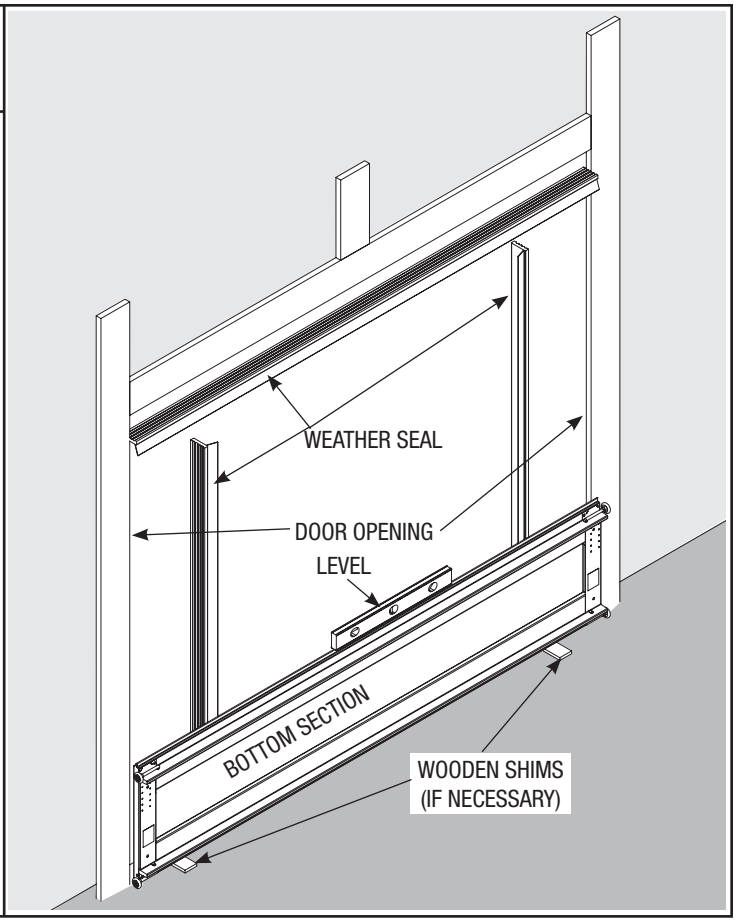
6 Bottom Section

Tools Needed:

Level

Before installing the bottom section, the weather seal (may not be included) must be installed (see PREPARING THE OPENING on page 10)

Center the bottom section in the door opening. Level section using wooden shims (if necessary) under the bottom section.



7 Vertical Track

Tools Needed:

3/16" Drill Bit

Power Drill

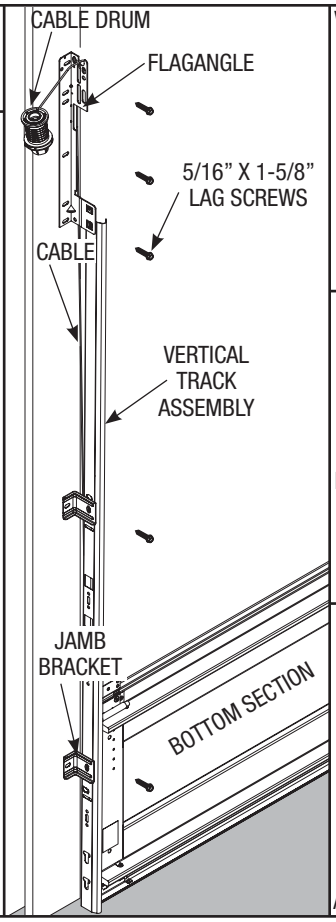
7/16" Socket Driver

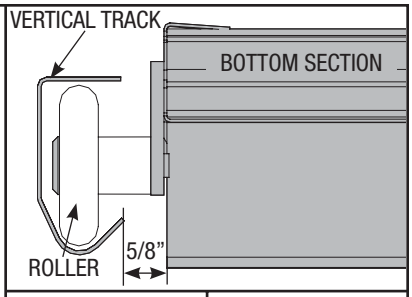
Tape Measure

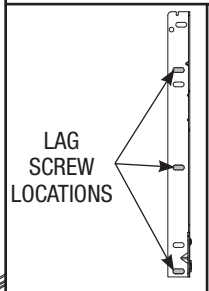
Level

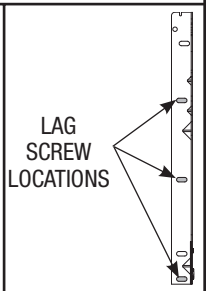
IMPORTANT: THE TOPS OF THE VERTICAL TRACKS MUST BE LEVEL FROM SIDE TO SIDE. IF THE BOTTOM SECTION WAS SHIMMED TO LEVEL IT. THE VERTICAL TRACK ON THE SHIMMED SIDE, MUST BE RAISED THE HEIGHT OF THE SHIM.

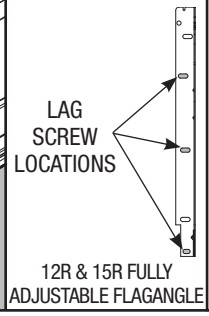
Position the left hand vertical track assembly over the rollers of the bottom section. Make sure the counterbalance cable is located between the rollers and the door jamb. Drill 3/16" pilot holes for the lag screws. Loosely fasten jamb brackets and flagangle to the jamb using 5/16" x 1-5/8" lag screws. Tighten lag screw securing bottom jamb bracket to jamb, to maintain 5/8" spacing. Hang cable drum over flagangle. Repeat for the right hand side.

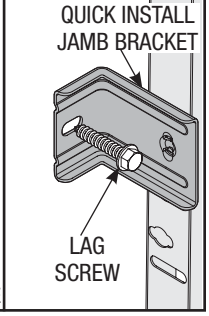












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8 Stacking Sections

Tools Needed:

Power Drill

7/16" Socket Driver

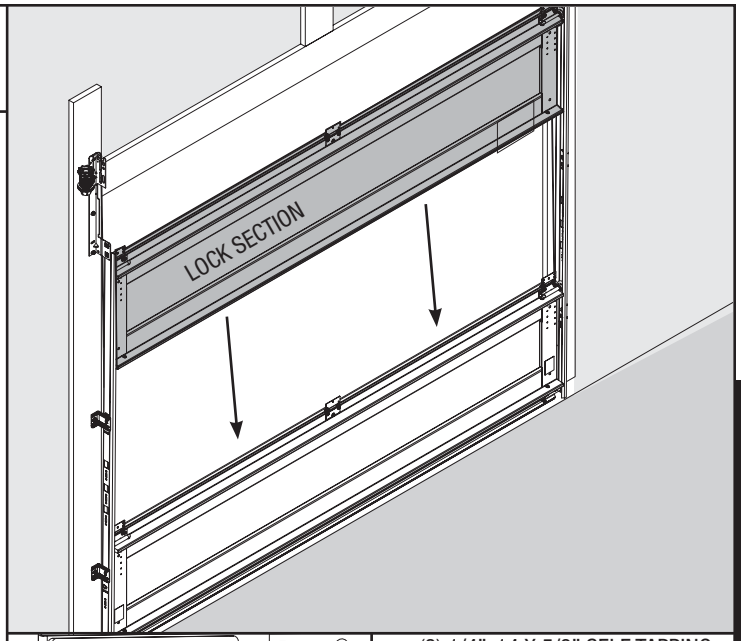
NOTE: For door section identification see page 4.

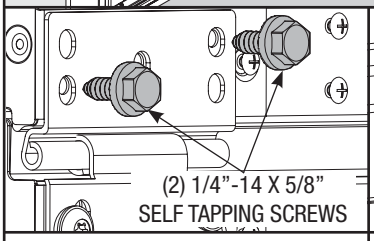
NOTE: Make sure hinges are flipped down, when stacking another section on top.

Place rollers in hinge tubes of the second section (lock section). With assistance, lift second section and guide rollers into the vertical tracks. Keep sections aligned and fasten hinges to connect the sections using 1/4"-14 x 5/8" self tapping screws. Repeat for other section(s) except top section.

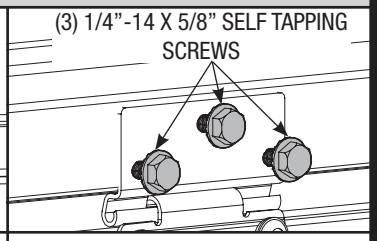
IMPORTANT: PUSH & HOLD THE HINGE LEAF AGAINST SECTION WHILE SECURING WITH 1/4"-14 X 5/8" SELF TAPPING SCREWS. END HINGES HAVE (2) SCREWS AND INTERMEDIATE HINGES HAVE (3) SCREWS.

NOTE: Install lock at this time (sold separately) see instructions in OPTIONAL SIDELOCK INSTALLATION on page 32.





END HINGES (LEFT HAND SHOWN, RIGHT HINGE SYMMETRICALLY OPPOSITE)



INTERMEDIATE HINGES

9 Top Brackets

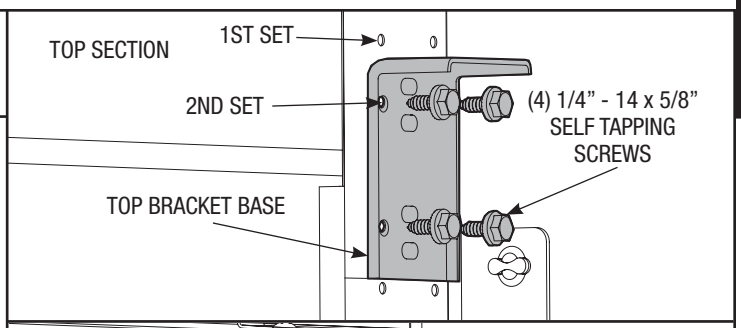
Tools Needed:

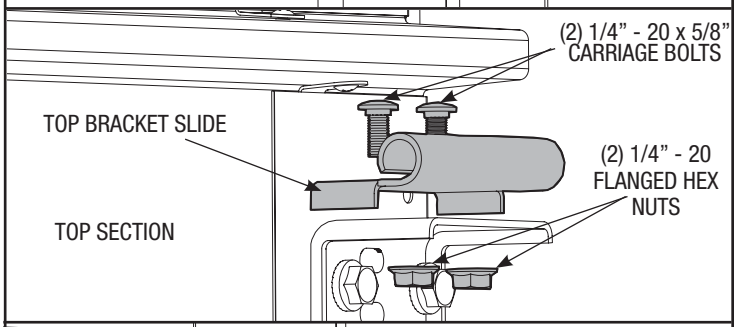
Power Drill

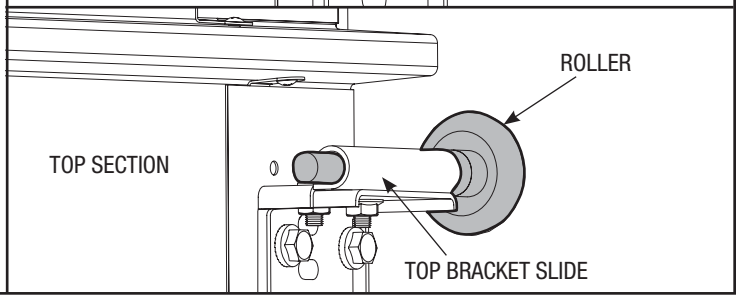
7/16" Socket Driver

To install the L-shaped top brackets, align the top holes in the top bracket base with the second set of holes in the endcap.

Fasten using (4) 1/4" - 14 x 5/8" self tapping screws. Secure the top bracket slide to the bracket base loosely using (2) 1/4" - 20 x 5/8" carriage bolts and (2) 1/4" - 20 flanged hex nuts. The bracket will be tightened and adjusted in Step 16. Insert rollers into top bracket slide. Repeat for other side.







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10 U-Bar

Tools Needed:

Power Drill

7/16" Socket Driver

(2) Saw Horses

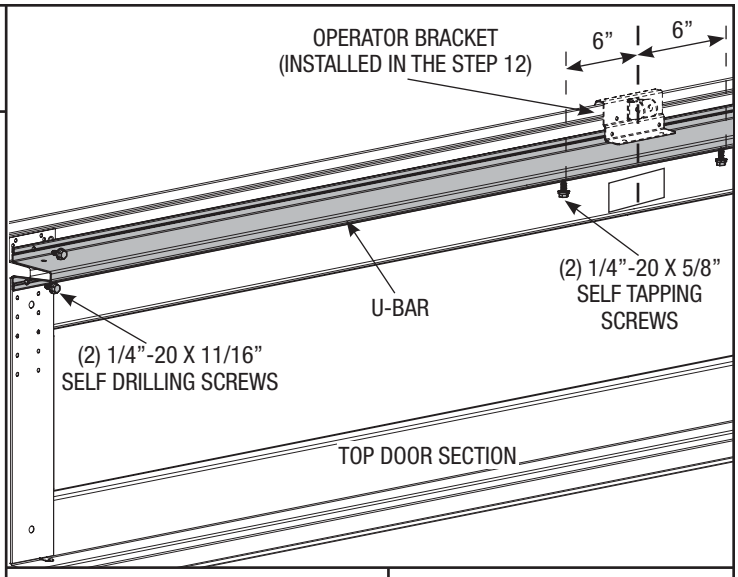
NOTE: If you have a model 9400/9600 Series door with windows in the top section or 9100 Sonoma (8' high), skip this step and complete Step 11.

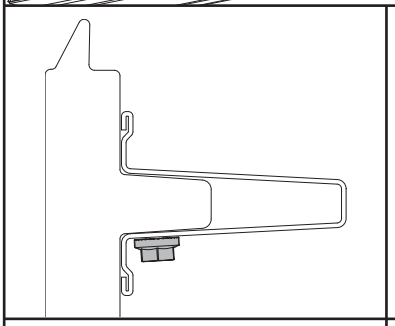
NOTE: Model 9100 Series door over 13' wide require a 3" U-Bar (supplied).

Place the 3" u-bar over the top rib. Fasten each end of the u-bar to the endcap with (2) 1/4"- 20 x 11/16" self drilling screws.

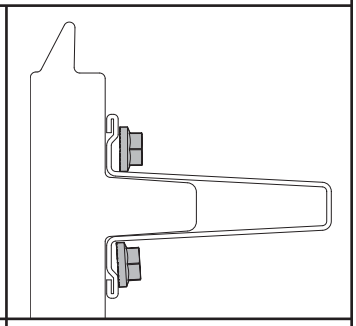
Fasten center of the u-bar as shown to the rib using (2) 1/4"-20 x 5/8" self tapping screws one 6" to the left and one 6" to the right of the center of the door section.

NOTE: After completing this step, continue with Step 12.





ATTACHING CENTER OF U-BAR



ATTACHING ENDS OF U-BAR

11 U-Bar - Asymmetrical

Tools Needed:

Power Drill

7/16" Socket Driver

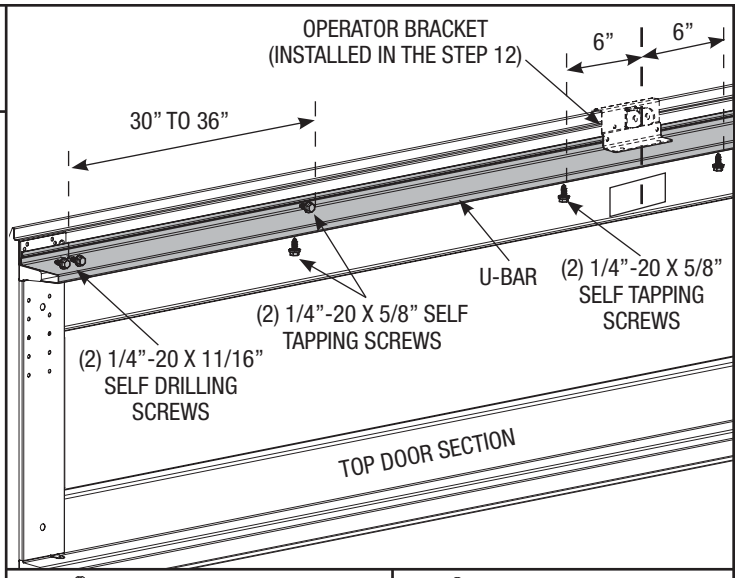
NOTE: If a 3" U-Bar was installed in Step 10, skip this step.

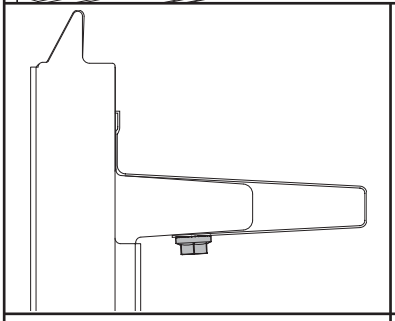
NOTE: Model 9400/9600 glazed top doors 13'-0" wide or greater will be supplied with a 3" asymmetrical u-bar for the top section.

Place the 3" asymmetrical u-bar over the top rib. Fasten each end of the u-bar to the endcap with (2) 1/4"- 20 x 11/16" self drilling screws.

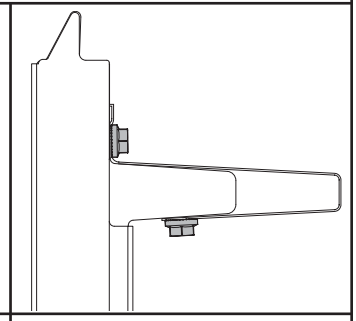
Fasten center of the u-bar as shown to the rib using (2) 1/4"-20 x 5/8" self tapping screws 6" off of the center of the door section.

Fasten both walls of the u-bar as shown using (2) 1/4"-20 x 5/8" self tapping screws every 30-36 inches. (Approximately 18 self tapping screws per 18' u-bar)





ATTACHING CENTER OF U-BAR



ATTACHING INTERMEDIATES OF U-BAR

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12

Operator Bracket

Tools Needed:

Power Drill

7/16” Socket Driver

Vice Clamps

Phillips Head Screwdriver

NOTE: Operator bracket must be mounted and secured prior to installing top section.

IMPORTANT: WHEN INSTALLING A TROLLEY TYPE OPERATOR ON 9100, 9400, AND 9600 SERIES DOORS, A WAYNE-DALTON TROLLEY BRACKET MUST BE SECURELY ATTACHED TO THE TOP SECTION, ALONG WITH ANY U-BAR’S INITIALLY PROVIDED WITH THE DOOR. IT IS THEN UNNECESSARY TO FURTHER REINFORCE THE TOP SECTION OF THE ABOVE MODEL WAYNE-DALTON DOOR, WHEN ATTACHING A TROLLEY TYPE OPERATOR, AS LONG AS THE INSTALLATION OF THE OPERATOR IS ACCORDING TO INSTALLATION INSTRUCTIONS AND OWNER’S MANUAL AND FORCE SETTINGS ARE ADJUSTED PROPERLY.

Prior to installing top section, locate the center of the top section and seat the operator bracket on male part of the top section. For retro fit applications, the operator bracket must be aligned with an existing operator and positioned on top section so it bridges the transition point of the section thickness, as shown in FIG. 1.1 and 1.2. Install (2) #12 x 1/2” phillips head screws on the opposite side of operator bracket, as shown in FIG. 1.3. Clamp operator bracket to u-bar (if furnished), as shown in FIG. 1.4. First attach (4) 1/4” - 14 x 5/8” self-tapping screws to the operator bracket, as shown in FIG. 1.5. Then attach (2) 1/4” - 14 x 5/8” self-tapping screws to the operator bracket, as shown in FIG. 1.6. Remove vice clamps.

NOTE: If you have a 9100 door, (2) of the 1/4” - 20 x 11/16” self-drilling screws used to attach the u-bar instead of (2) 1/4” - 14 x 5/8” self-tapping screws when attaching operator bracket to u-bar, as shown in FIG. 1.6.

NOTE: When attaching operator bracket to top section with u-bar, apply additional pressure to thread into the u-bar.

NOTE: See FIG. 1.7 for installing operator bracket on top section without u-bars.

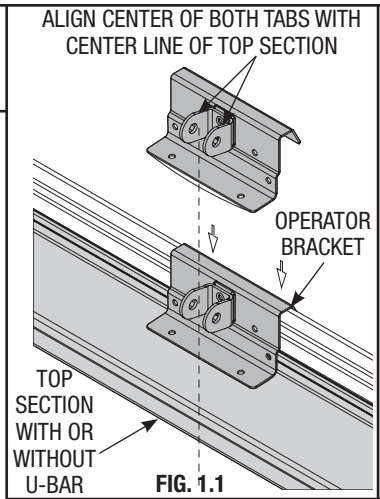

FIG. 1.1

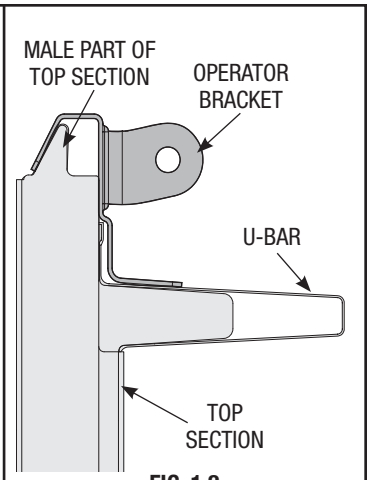

FIG. 1.2

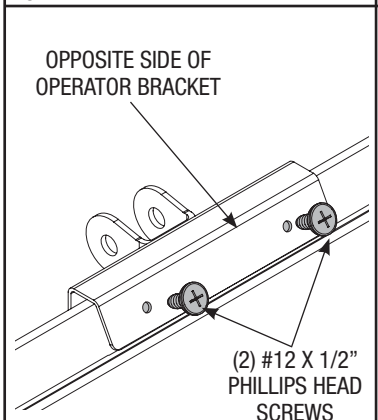

FIG. 1.3

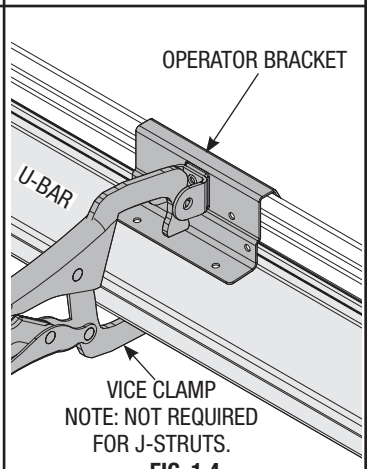

FIG. 1.4

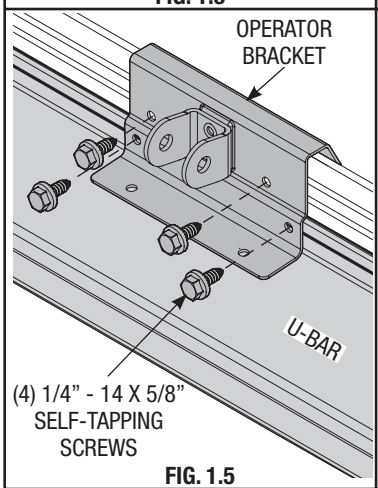

FIG. 1.5

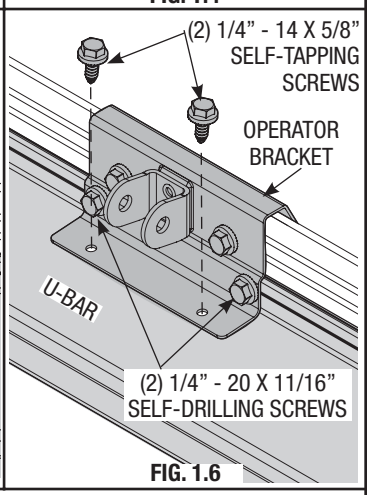

FIG. 1.6

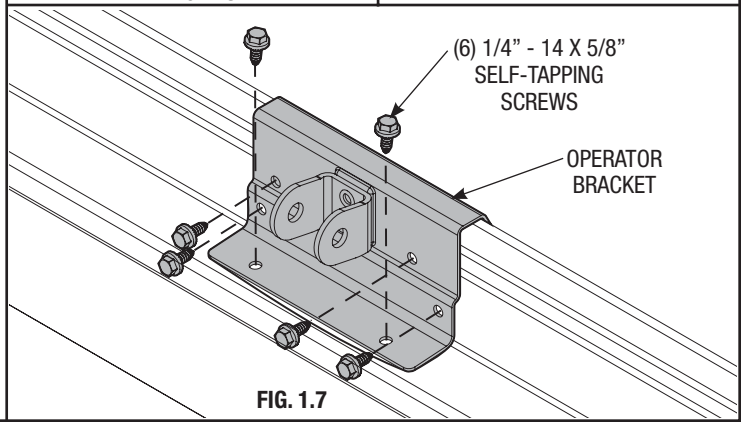

FIG. 1.7

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13

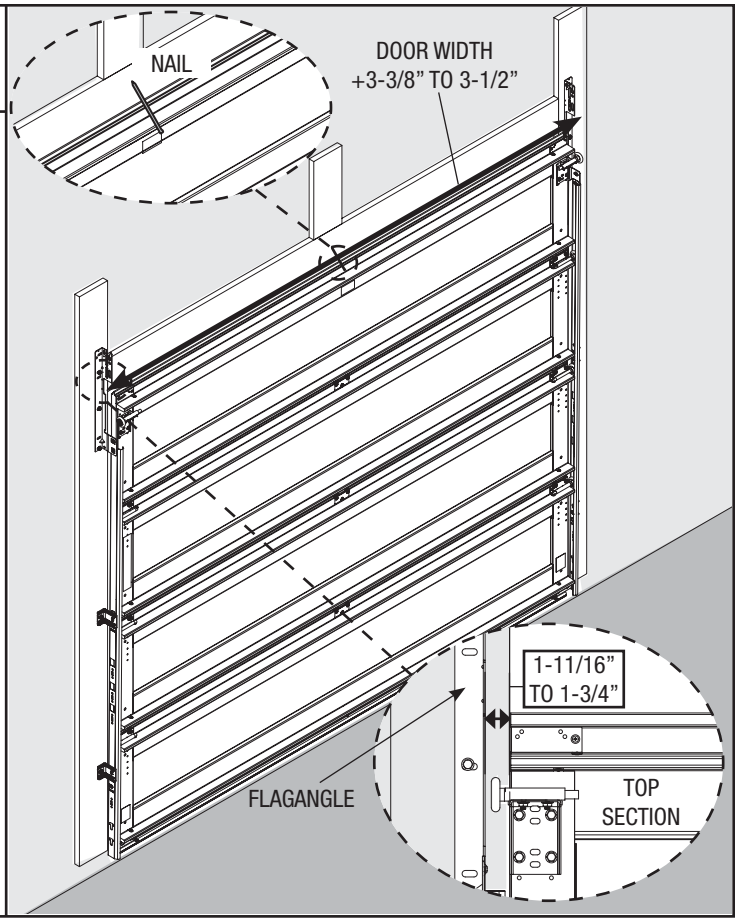
Top Section

Tools Needed:

Hammer

Place the top section in the opening and vertically align with lower sections. Temporarily secure the top section by driving a nail in the header near the center of the door and bending it over the top section. Now flip up hinge leaf, hold tight against section, and fasten center hinges first, and end hinges last. (Refer to Step 8). When installing a door with a TorqueMaster® counterbalance system, vertical track alignment is critical. Position flagangle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door. Flagangles must be parallel to the door sections. Now complete the vertical track installation by securing the center jamb bracket and tightening the other lag screws. Repeat for other side.

IMPORTANT: THE DIMENSION BETWEEN THE FLAGANGLES MUST BE DOOR-WIDTH PLUS 3-3/8" (86 MM) TO 3-1/2" (89 MM) FOR SMOOTH, SAFE DOOR OPERATION.



14

Attaching Quick Install Flagangle to Horizontal Track

Tools Needed:

9/16" Socket Ratchet Wrench

9/16" Wrench

Level

NOTE: If you have fully adjustable flagangle, skip this step and complete Step 15.

To install horizontal track, place the curved end over the top roller. Align key slot of the horizontal track with the quick install tab of the flagangle. Push curved portion of horizontal track down to lock in place.

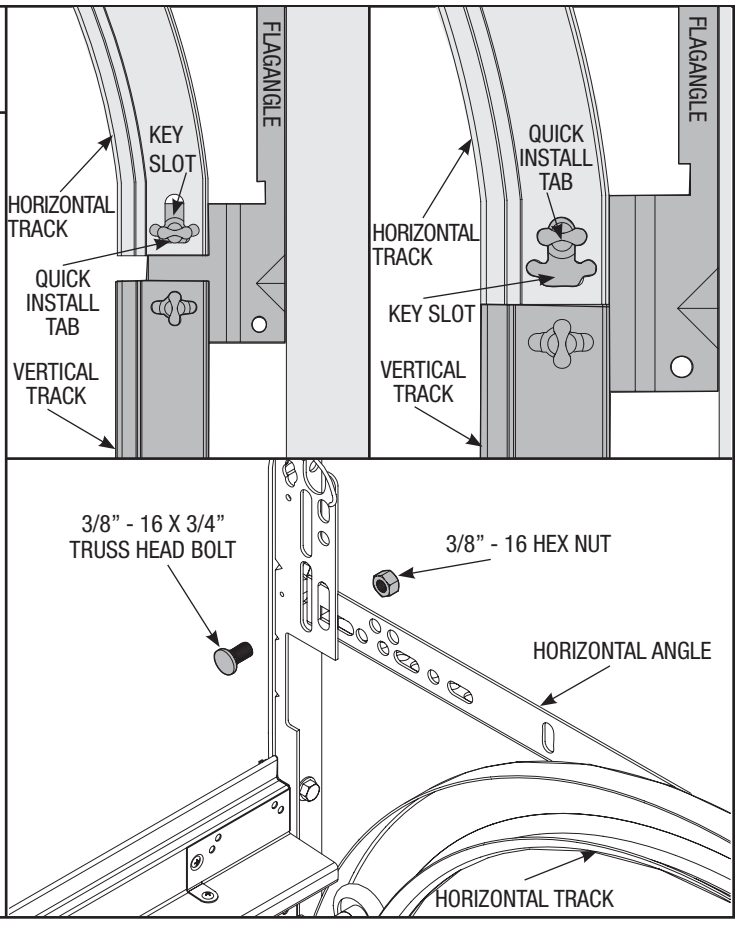
⚠ WARNING

DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP 34, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

Level the horizontal track assembly and bolt the horizontal angle to the slot in the flagangle using (1) 3/8" - 16 x 3/4" truss head bolt and (1) 3/8" - 16 hex nut. Repeat for other side. Remove the nail that was temporarily holding the top section in place, installed in Step 13.

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.

NOTE: If an *i*drive® opener will be installed, position horizontal tracks slightly above level.
NOTE: After completing this step, continue with Step 16.



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15

Attaching Adjustable Flagangle to Horizontal Track

Tools Needed:

7/16" Socket

9/16" Socket

Ratchet Wrench

9/16" Wrench

Level

FLAT TIP SCREWDRIVER

NOTE: If quick install flagangles were installed in Step 14, skip this step and continue with Step 16. If not, complete this step.

To install horizontal track, place the curved end over the top roller. Align the bottom of the horizontal track with the vertical track. Hand tighten the horizontal track to the flagangle with (2) 1/4" - 20 x 9/16" large head ribbed track bolts (or stud plate if included) and (2) 1/4"-20 flange hex nuts.

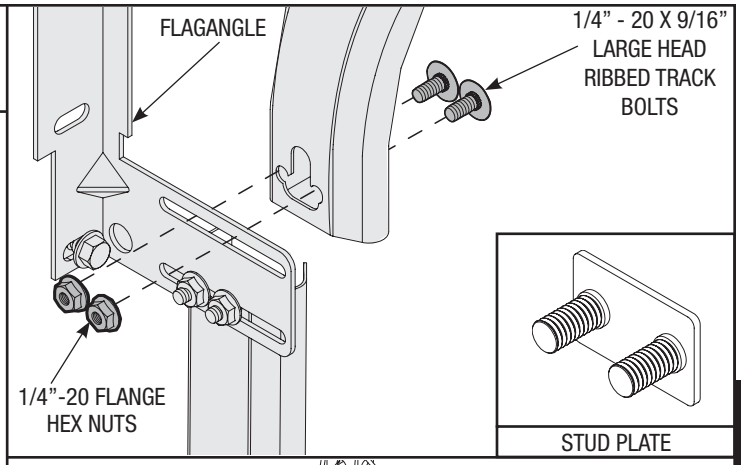
⚠ WARNING

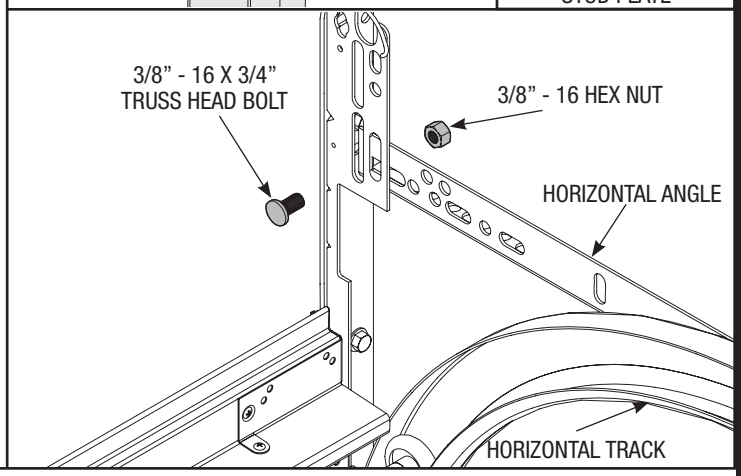
DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP 34, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

Level the horizontal track assembly and bolt the horizontal angle to the slot in the flagangle using (1) 3/8" - 16 x 3/4" truss head bolt and (1) 3/8" - 16 hex nut. Repeat for other side. Remove the nail that was temporarily holding the top section in place, installed in Step 13.

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.

NOTE: If an *i*drive® opener will be installed, position horizontal tracks slightly above level.





16

Adjusting Top Brackets

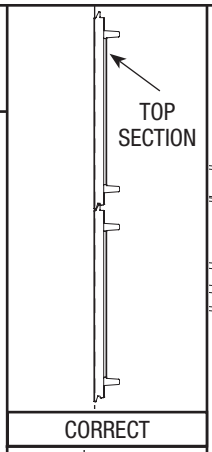
Tools Needed:

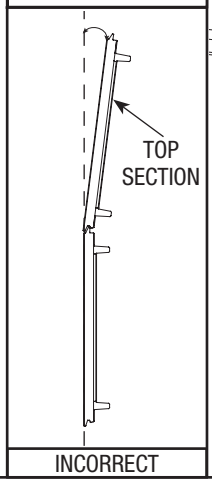
7/16" Wrench

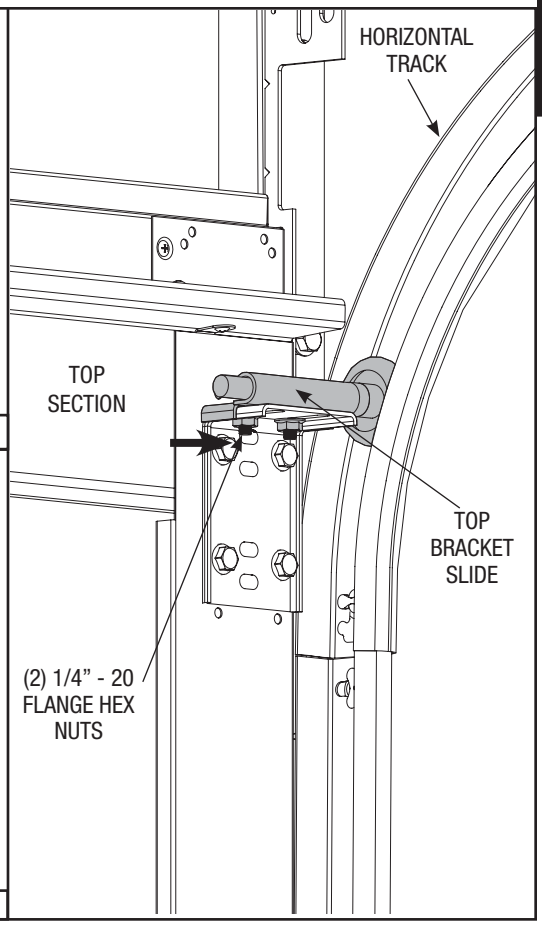
With horizontal tracks installed, you can now adjust the top brackets.

Vertically align the top section of the door with the lower sections. Once aligned, position the top bracket slide, out against the horizontal track.

Maintaining the slide's position, tighten the (2) 1/4" - 20 flange hex nuts to secure the top roller slide to the top bracket base.







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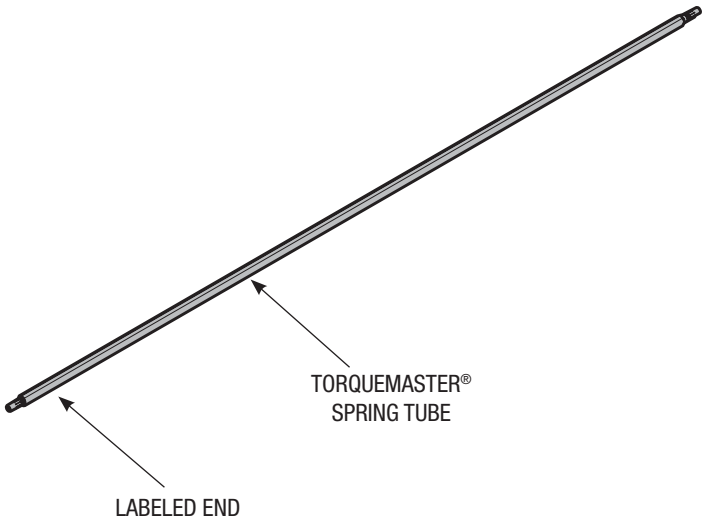
17 TorqueMaster® Spring Tube

Tools Needed:

None

TorqueMaster® springs come lubricated and pre-assembled inside the TorqueMaster® spring tube. To install, lay the TorqueMaster® spring tube on the floor (inside garage) in front of the door with the labeled end to the left.



18 Center Bracket Bushing

Tools Needed:

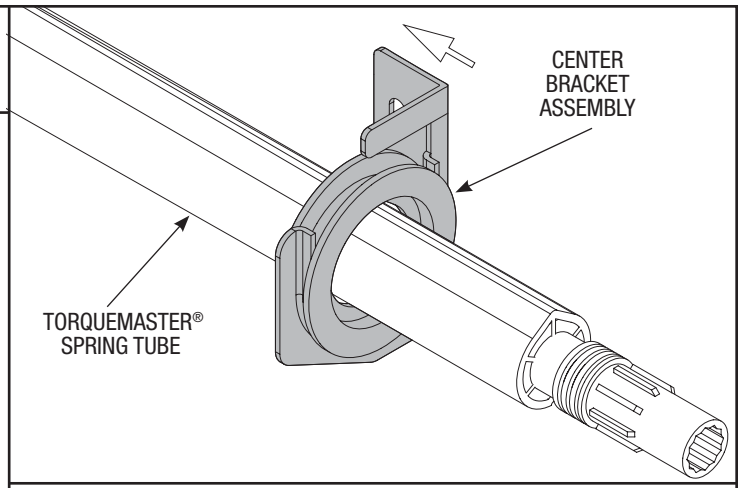
NOTE: If you are installing the *i*drive® opener on your garage door, skip this step and continue with Step 19.

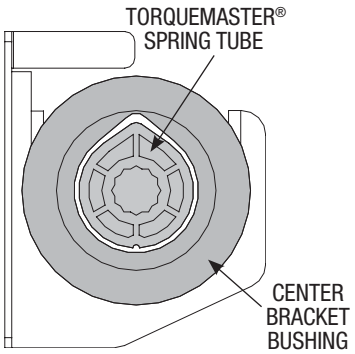
NOTE: If you are not installing the *i*drive® opener on your garage door, you must install the center bracket bushing assembly. Follow these instructions for non-*i*drive® operated garage doors.

NOTE: If you are installing a DoorMaster™ opener, see optional DoorMaster™ Bracket installations on page 32, Figure A.

Being cam shaped the center bracket bushing only fits one way.
Slide the center bracket assembly towards the center of the TorqueMaster® spring tube, from the right side as shown.

NOTE: Upon completion of this step, continue with Step 20.





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19

*i*drive® Installation

Tools Needed:

NOTE: See *i*drive® main installation and owners manual for *i*drive® parts.

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.

With the TorqueMaster® spring tube on the floor (inside garage) in front of the door with the labeled end to the left.

Look into the opener's left side to ensure the left hand bearing and the internal (black) sleeve are aligned with the TorqueMaster® spring tube profile.

IMPORTANT: HOLD OPENER BY THE MAIN BODY. DO NOT HOLD BY THE MOTOR.

NOTE: Opener will not slide over a torque tube label. Attempting to slide opener over the left end of the TorqueMaster® spring tube can damage the internal electronics.

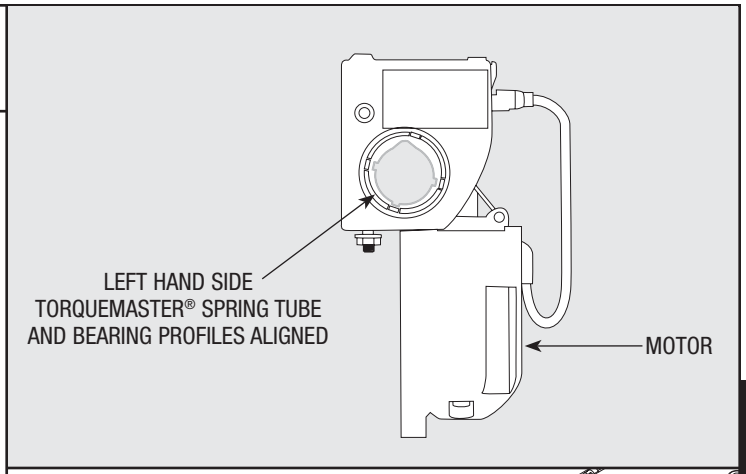
Once aligned, slide the opener onto the right hand end of the TorqueMaster® spring tube. As the right end of the TorqueMaster® spring tube enters the internal (black) sleeve, rotate the opener back and forth slightly to help aid alignment.

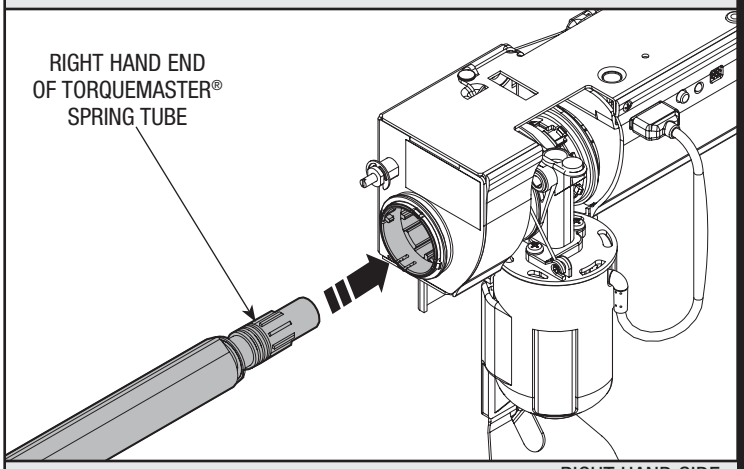
Continue sliding the opener onto the TorqueMaster® spring tube. Align the right hand bearing with the TorqueMaster® spring tube and slide the opener completely onto the TorqueMaster® spring tube until the TorqueMaster® spring tube exits the opener right hand bearing.

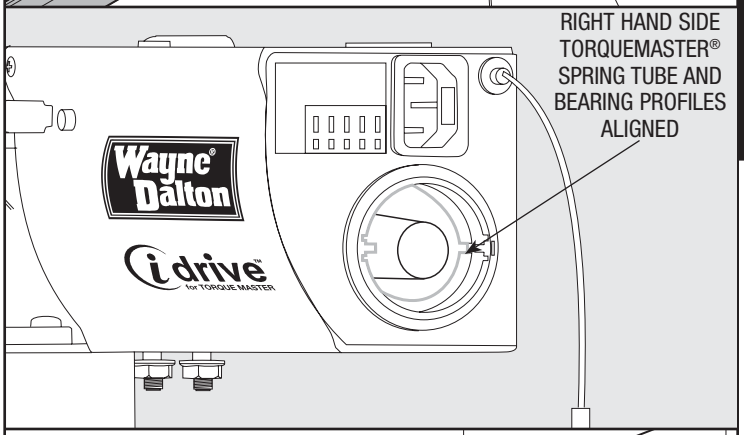
NOTE: Do not force the opener onto the TorqueMaster® spring tube if misalignment occurs.

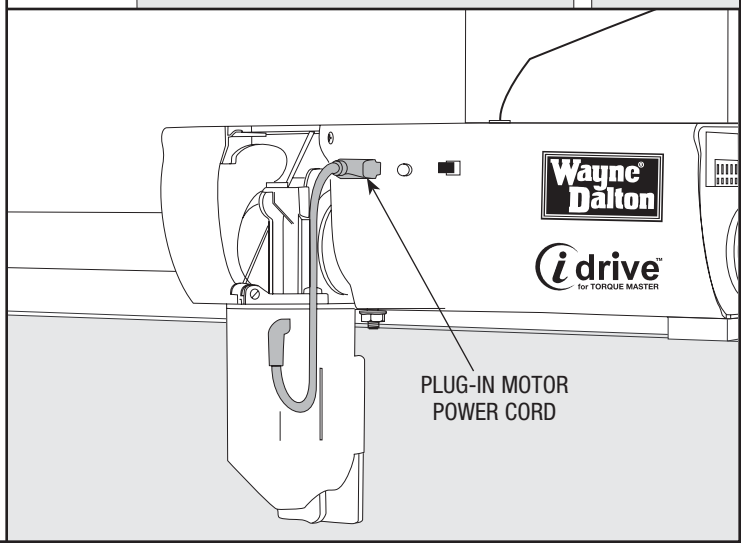
Continue sliding the opener to the center of the TorqueMaster® spring tube.

Plug the motor power cord into the opener.









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20

Cable Drum Installation

Tools Needed:
None

Shake the TorqueMaster® spring tube gently to extend the winding shafts out about 5" on each side. For single spring applications, there will be no left hand spring in the TorqueMaster® spring tube.

Lift the TorqueMaster® spring tube and rest it on the top of the flagangles. Orient TorqueMaster® spring tube so that back of opener is flat against header/mounting surface.

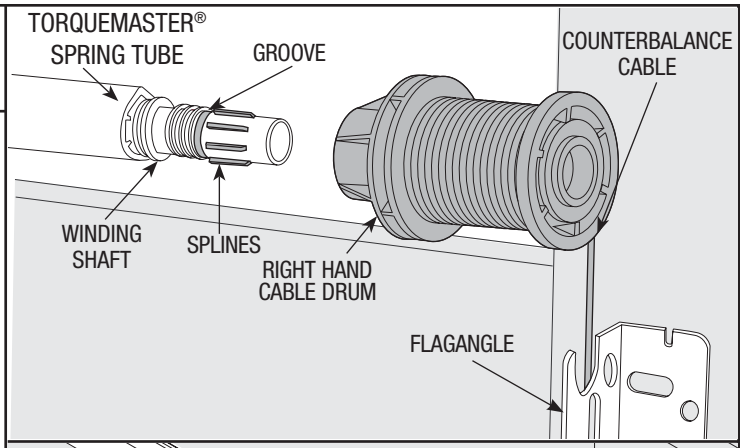
NOTE: Cable drums are marked right and left hand. Cable drums and TorqueMaster® spring tube are cam shaped to fit together only one way.

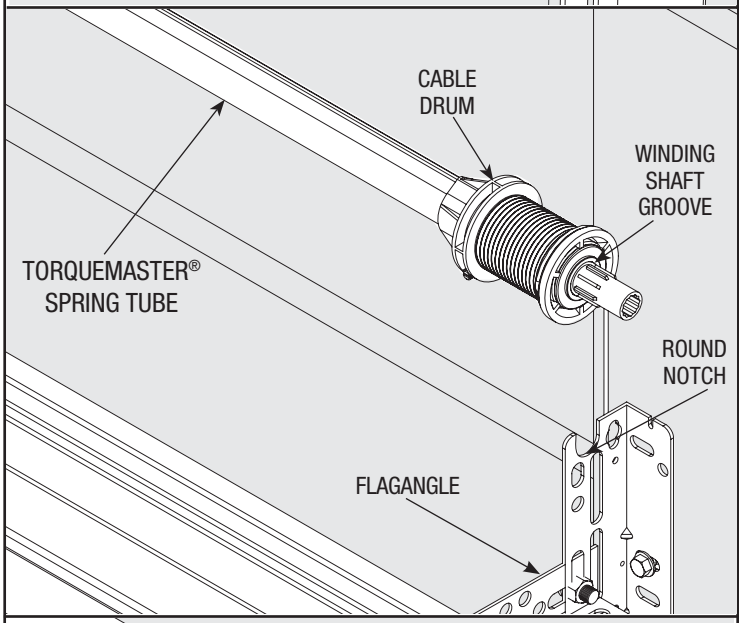
To install the cable drum, slide the correct cable drum over the winding shaft until the cable drum seats against the TorqueMaster® spring tube. The winding shaft must extend past the cable drum far enough to expose the splines and the groove. Align the winding shaft groove with the round notch in the flagangle.

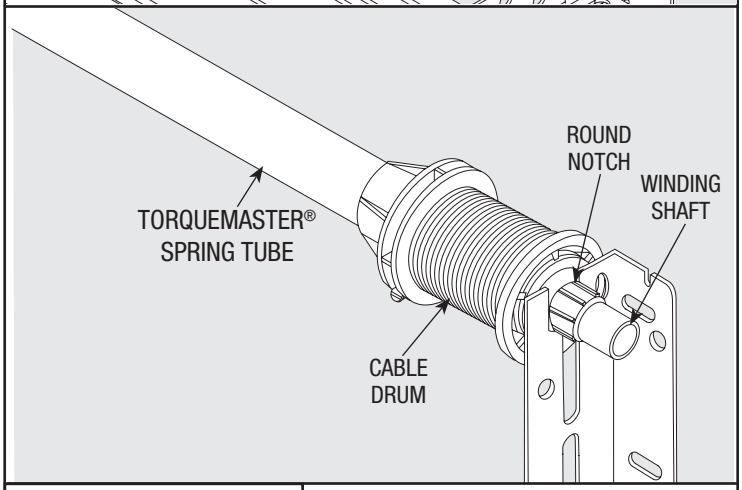
For Double Spring Applications: Repeat for opposite side.

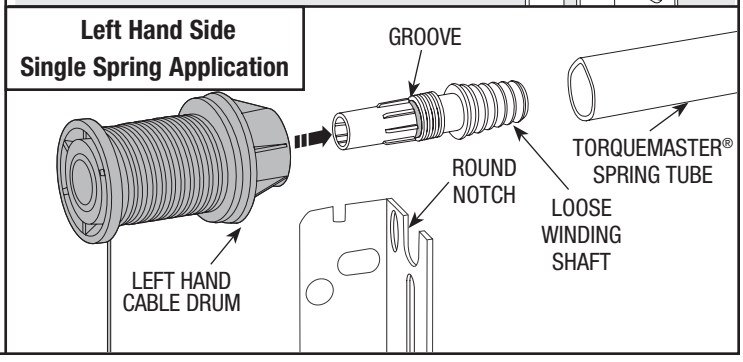
For Single Spring Applications: Insert the loose winding shaft into the left hand cable drum prior to sliding the cable drum over the TorqueMaster® spring tube.

NOTE: On single spring applications, take care in handling the loose winding shaft (left side) so that it does not slide back into the TorqueMaster® spring tube.









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21

Drive Gear Installation

Tools Needed:

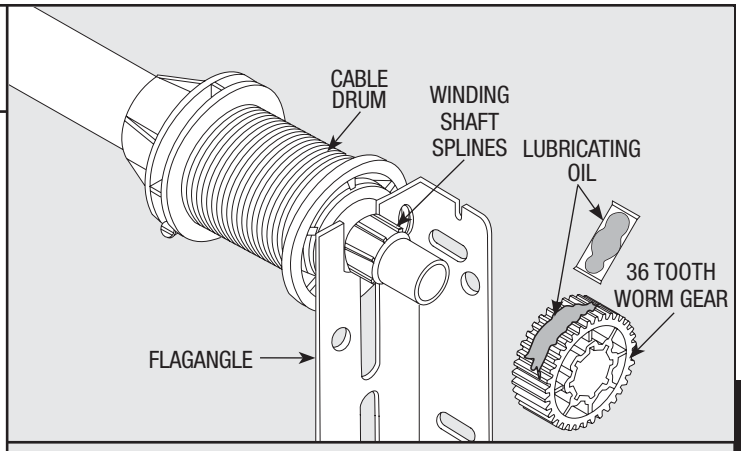
Lubricating Oil

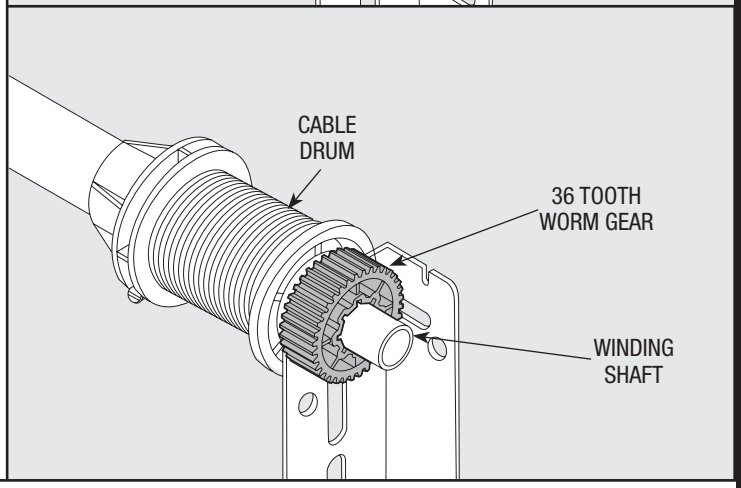
36 Tooth Worm Gear

Beginning with the right hand side, lubricate entire circumference of the 36 tooth worm gear with the lubricating oil provided. Slide the 36th worm gear onto the winding shaft splines until it touches the flagangle.

NOTE: On single spring applications, no drive gear is required on the left side.

NOTE: If additional lubricating oil is needed, use "Dura Lube® Engine Oil Treatment".





22

End Brackets

Tools Needed:

Power Drill

3/16" Drill Bit

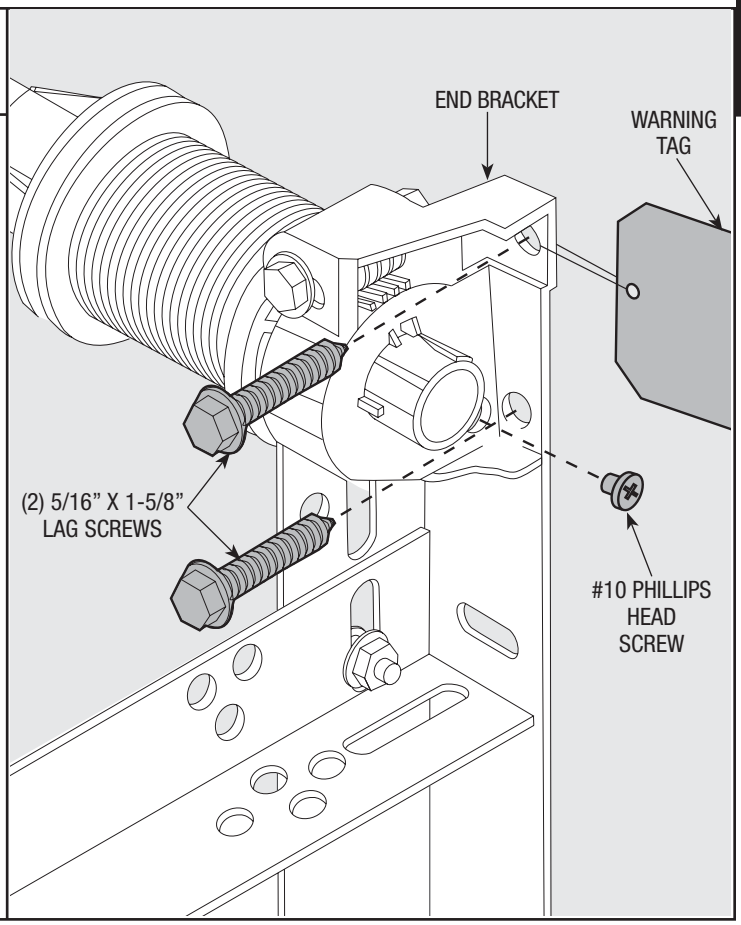
7/16" Socket Driver

Phillips Head Screwdriver

IMPORTANT: WARNING TAGS MUST BE SECURELY ATTACHED TO BOTH END BRACKETS.

Slide the right hand end bracket over the drive gear and fasten to the flagangle using a #10 self-tapping screw. Drill 3/16" pilot holes into jamb for the lag screws. Secure end bracket and the flagangle to the jamb using (2) 5/16" x 1-5/8" lag screws.

Repeat for left hand side.



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23 Counter Installation

Tools Needed:

None

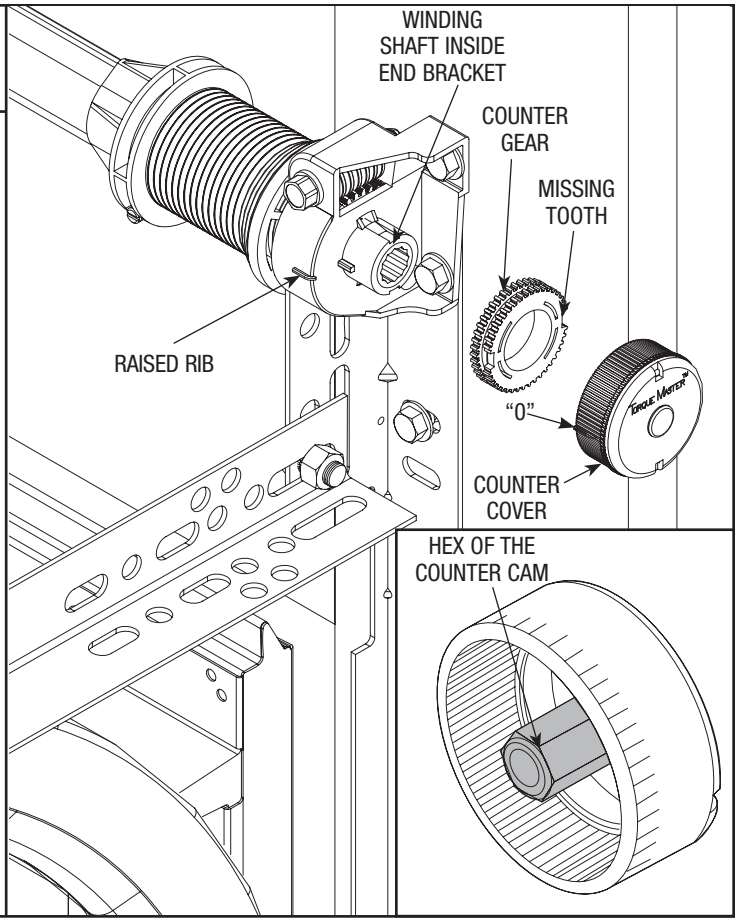
Install the right side counter gear, with the missing tooth toward the outside and away from the end bracket. Press the counter gear onto the end bracket until snaps engage.

Select the right hand counter cover and align the hex of the counter cam with the end of the winding shaft. Also, align the "0" on the counter cover with the raised rib on the end bracket. Press the counter cover against the counter gear until it locks into place.

Repeat for left hand side for double spring applications.

NOTE: No 36 tooth worm gear, counter gear or counter cover is required on left hand side for single spring applications. Only an end bracket is needed.

IMPORTANT: AT THIS TIME DO NOT WIND COUNTERBALANCE SPRINGS!



24 Securing Center Bracket Assembly

Tools Needed:

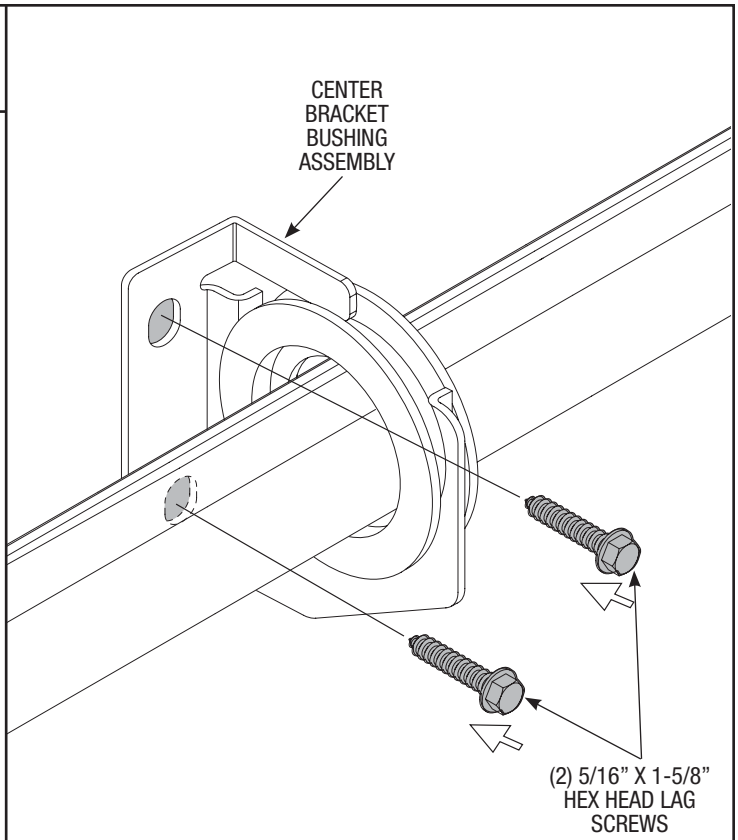
NOTE: If you are installing the *i*drive® opener on your garage door, skip this step and continue with Step 25.

NOTE: If you are not installing the *i*drive® opener on your garage door, you must install the center bracket bushing assembly. Follow these instructions for non-*i*drive® operated garage doors.

NOTE: If you are installing a DoorMaster™ opener, see optional DoorMaster™ Bracket installations on page 32, Figure B.

To locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster® spring tube. Drill 1/8" pilot holes into header for the lag screws. Fasten the metal bracket to the header using (2) 5/16" X 1-5/8" lag screws.

NOTE: Upon completion of this step, continue with Step 29.



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25

Positioning Support Bracket

Tools Needed:

Power Drill

1/8” Drill Bit

7/16” Socket Driver

NOTE: See idrive® main installation and owners manual for idrive® parts.

NOTE: idrive® must be installed on a solid mounting surface.

Locate the mounting surface. The mounting surface is a vertical board running directly above the center of the door. Remove (2) 1/4”-20 flange nuts from bottom of opener.

NOTE: Do not discard flange nuts.

Place the support bracket underneath opener, to the right side of motor, centered on mounting surface. Using a tape measure, level the bottom of the TorqueMaster® spring tube to the top of the door section with the idrive® resting on the support bracket. Once TorqueMaster® spring tube is level, drill 1/8” pilot holes for the lag screws. Then secure support bracket to the mounting surface with (2) 1/4” x 1-1/2" lag screws.

IMPORTANT: TORQUEMASTER® SPRING TUBE MUST BE LEVEL AFTER SUPPORT BRACKET IS FASTEN TO MOUNTING SURFACE.

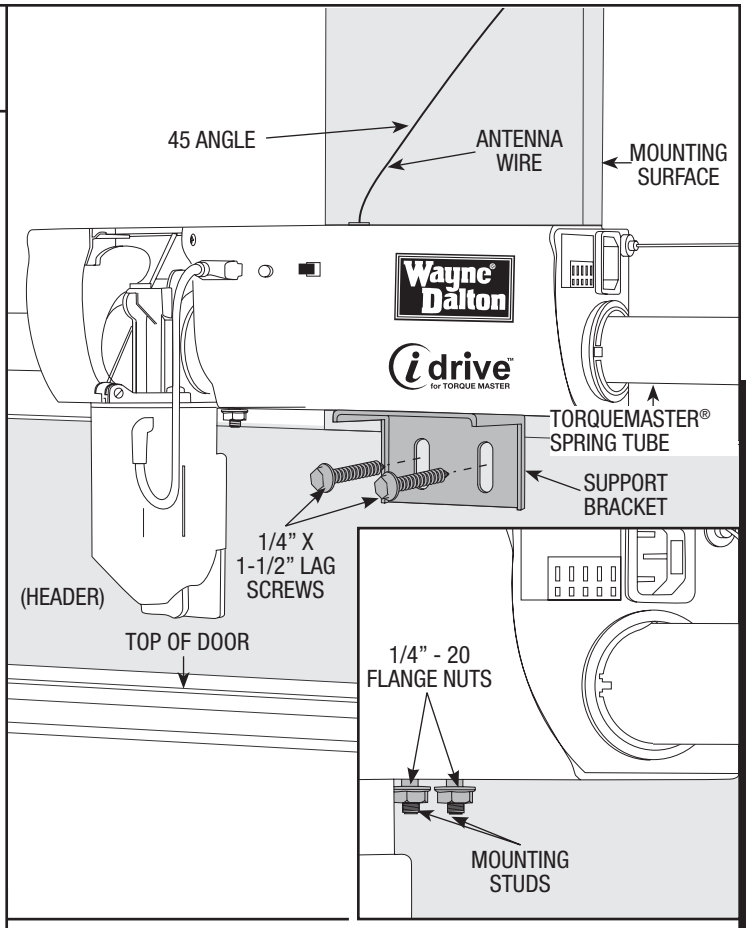
NOTE: If wood mounting surface is behind dry wall, use 1/4” x 2” lag screws.

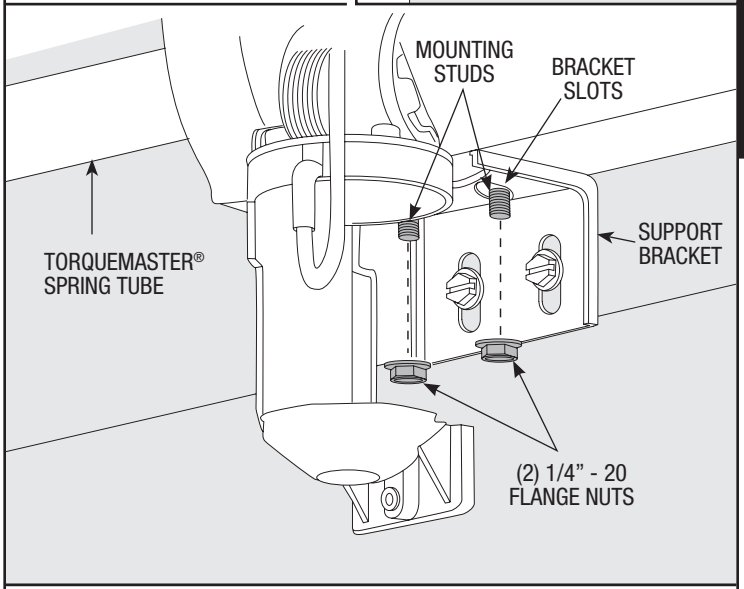
Lift and slide the opener over the support bracket, aligning the mounting studs with the bracket slots. Loosely fasten to mounting studs with the (2) 1/4”-20 flange nuts.

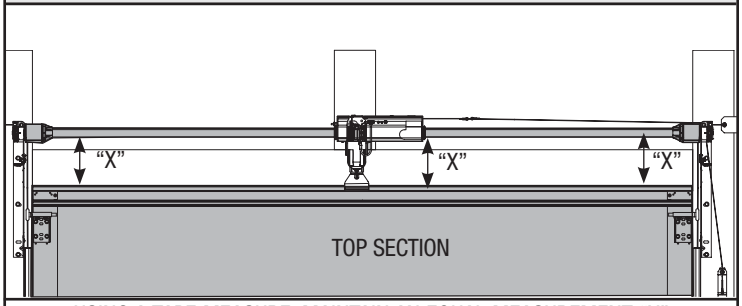
NOTE: Do not tighten 1/4”-20 flange nuts to opener studs at this time.

Remove the temporary orange label holding the antenna wire. Straighten antenna wire and angle it 45 degrees to the right.

NOTE: Do not coil the antenna wire. This will reduce the radio signal range.







USING A TAPE MEASURE, MAINTAIN AN EQUAL MEASUREMENT “X” (TOP OF DOOR TO BOTTOM OF TORQUEMASTER® TUBE) AT BOTH ENDS AND THE CENTER.

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26

Attaching Disconnect Cables

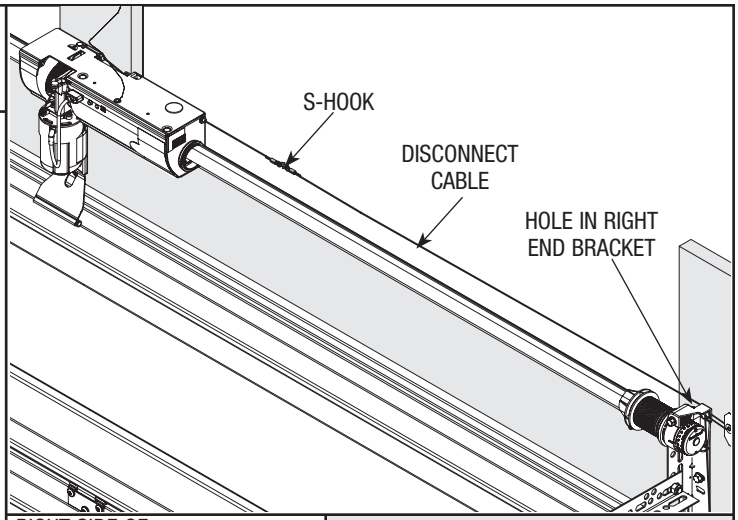
Tools Needed:

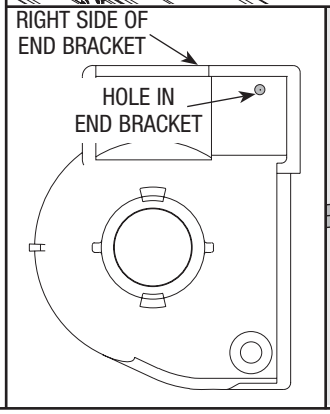
Pliers

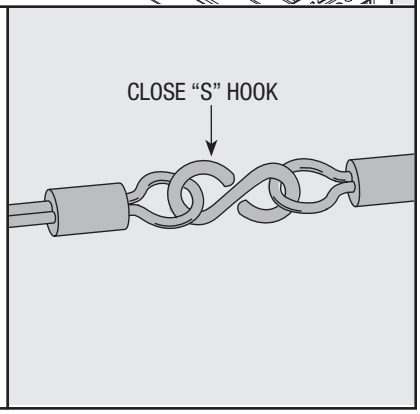
NOTE: See *i*drive® main installation and owners manual for *i*drive® parts.

Attach the loose disconnect cable (located in opener hardware bag) to the opener with the “S” hook. Close both ends of the “S” hook (with pliers) to lock assembly together.

Thread the disconnect cable (behind the counterbalance cable) through the hole in the right hand end bracket; remove all slack between opener and right end bracket.







27

Mounting Disconnect Handle Bracket

Tools Needed:

Pencil

Tape measure

1/8” Drill Bit

7/16” Socket Driver

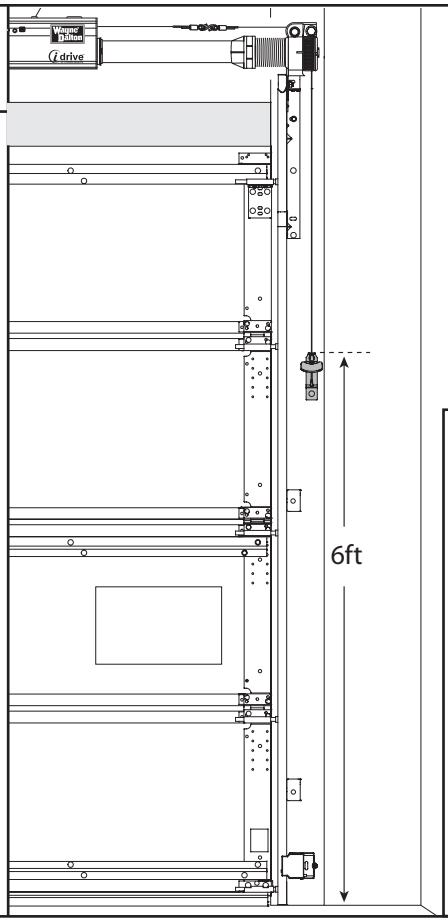
Power Drill

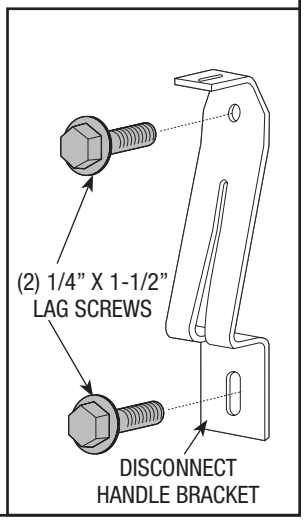
NOTE: See *i*drive® main installation and owners manual for *i*drive® parts.

Mark a location on the right jamb, 6 feet above the floor to mount the disconnect handle bracket.

Drill 1/8” pilot holes for the lag screws.

Align top of the bracket with the mark. Fasten bracket to the jamb with (2) 1/4” x 1-1/2" lag screws.





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28

Attaching Disconnect Handle

Tools Needed:

Phillips head screwdriver

Wire cutters

NOTE: See *i*drive® main installation and owners manual for *i*drive® parts.

NOTE: Bring motor to the down position by pulling the disconnect cable, insure opener disconnect teeth are engaged before installing disconnect handle.

Start the #6-20 x 1/2" screw into the disconnect handle. Thread the disconnect cable through the top of the disconnect handle bracket and then the disconnect handle.

Locate the disconnect handle in full upper position of disconnect handle bracket.

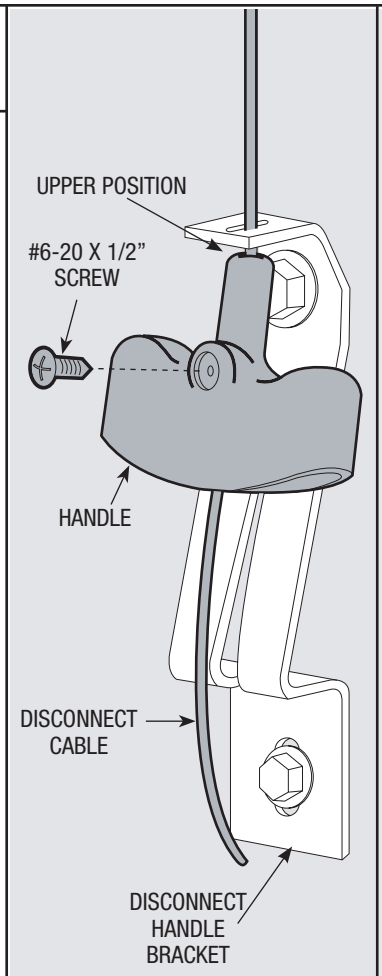
Remove all disconnect cable slack between the opener and the top of the disconnect handle bracket. Tighten #6-20 x 1/2" screw into the disconnect handle until snug, and then tighten screw an additional 1 to 1-1/2 turns to secure disconnect cable to the disconnect handle. Trim off excess cable from bottom of the disconnect handle.

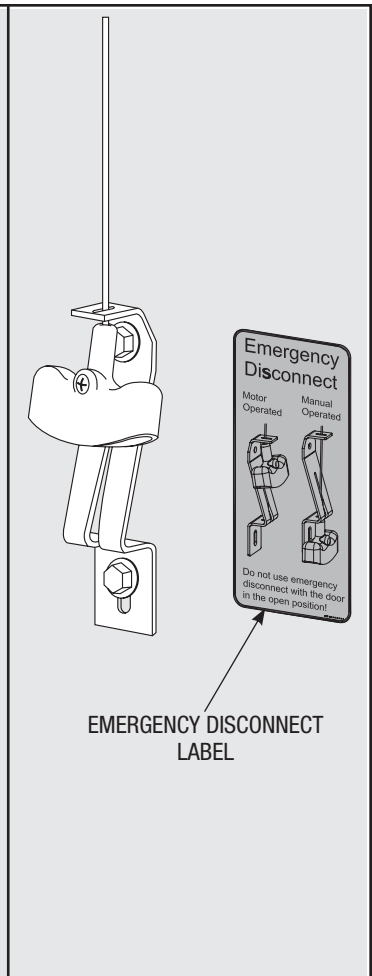
CAUTION: PULL CABLE ONLY TAUT ENOUGH TO REMOVE THE CABLE SLACK. PULLING THE CABLE MORE COULD CAUSE OPENER TO DISCONNECT FROM THE TORQUEMASTER® SPRING TUBE.

Apply emergency disconnect label next to the mounted bracket. Use mechanical fasteners if adhesive will not adhere.

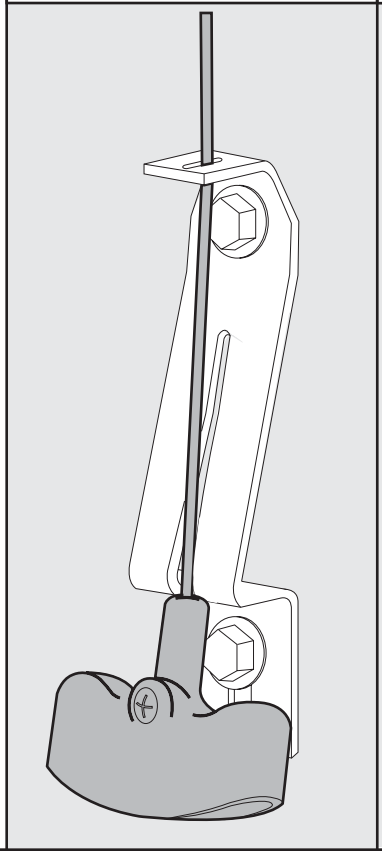
Using the emergency disconnect, pull disconnect handle downwards and place it in the manual door operated position (Use disconnect label for reference). Motor will be rotated 90° from its packaged position.

If motor does not pivot 90°, see troubleshooting section in the main installation and owners manual of your *i*drive® opener

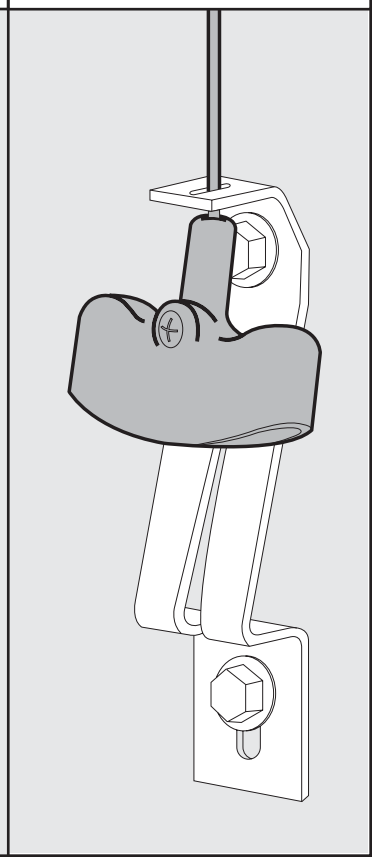



Emergency Disconnect
Motor Operated
Manual Operated
Do not use emergency disconnect with the door in the open position!
EMERGENCY DISCONNECT LABEL

MANUAL OPERATED POSITION



MOTOR OPERATED POSITION



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29

Securing Door for Spring Winding

Tools Needed:

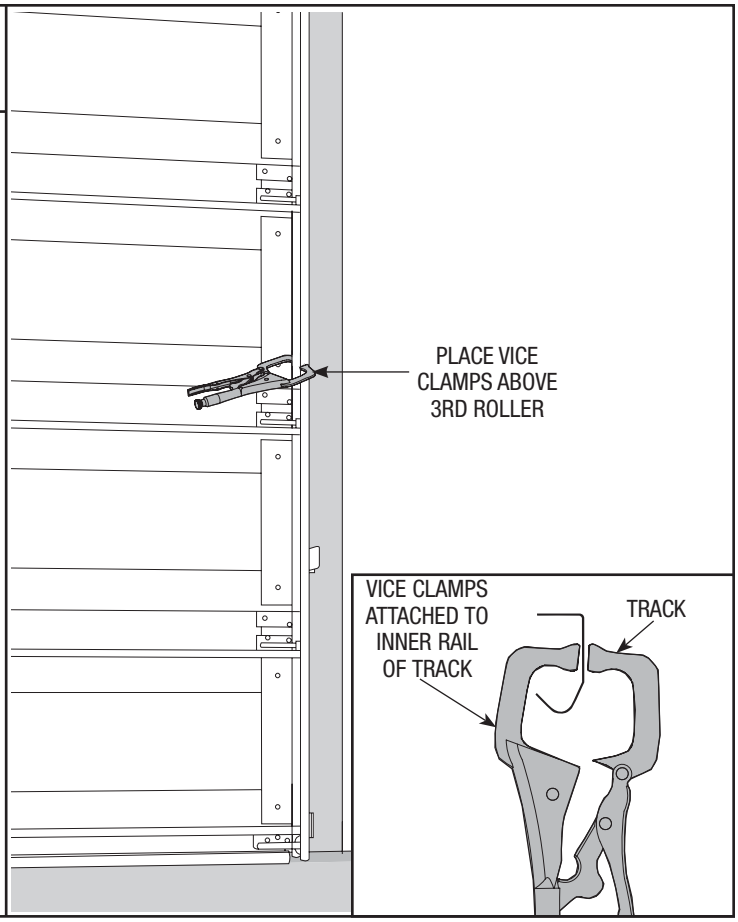
Vice Clamp

⚠ WARNING

FAILURE TO PLACE VICE CLAMPS ONTO VERTICAL TRACK CAN ALLOW DOOR TO RAISE AND CAUSE SEVERE OR FATAL INJURY.

Place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while winding counterbalance springs.

IMPORTANT: DO NOT USE IMPACT GUN TO WIND SPRING(S).



30

Cable Adjustments

Tools Needed:

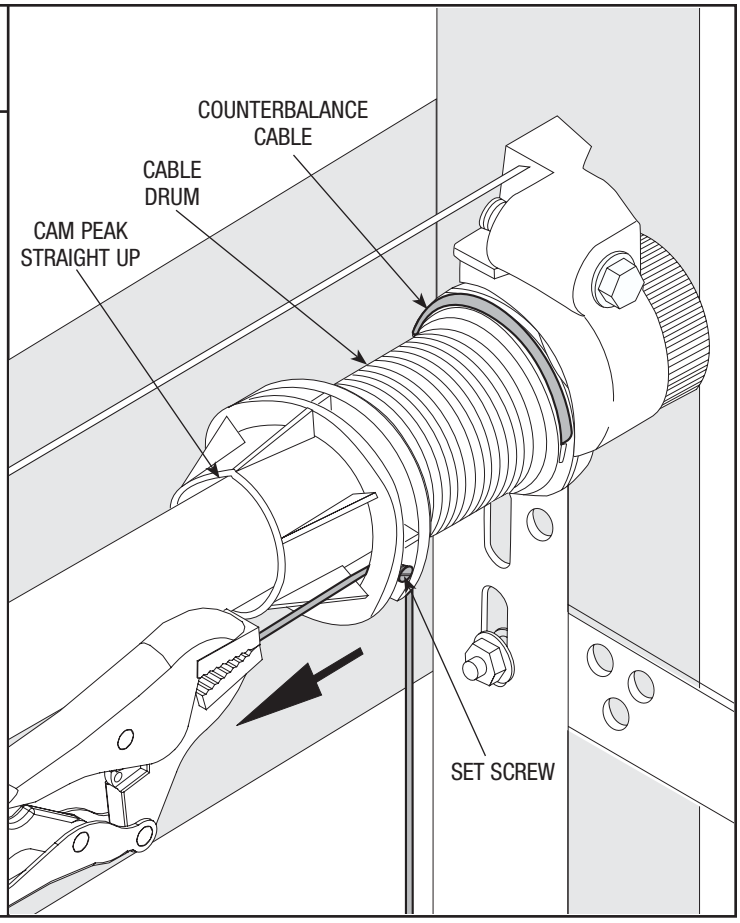
Locking Pliers

Flat Tip Screwdriver

Rotate the cable drum until the set screw faces directly away from the header. TorqueMaster® spring tube cam peak should be pointing straight up.

Beginning with the right side, loosen the set screw enough to adjust cable, approximately 2 turns. Using locking pliers, pull on the end of the cable to remove all cable slack.

Check to ensure the cable is aligned and seated in the first groove of the cable drum. Snug the set screw, then tighten an additional 1-1/2 turns. Cut excess cable.



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31 Winding Bolt Rotation

Tools Needed:

Power Drill

7/16" Socket Driver

See chart in Step 32 for proper spring tension setting.

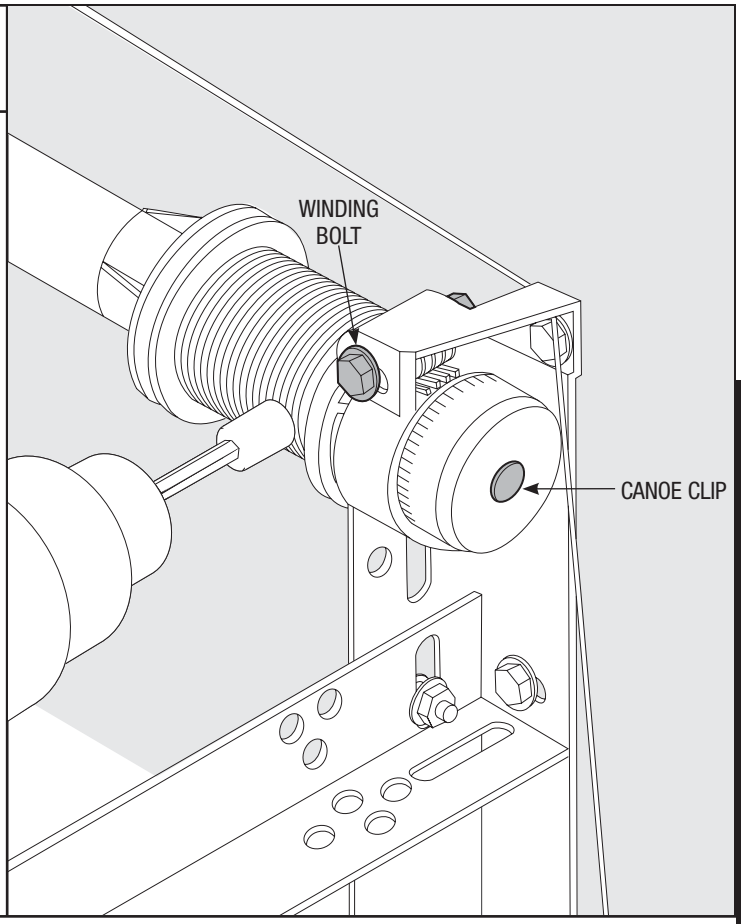
Beginning with the right hand side, ensure the cable is in the first groove of the cable drum. Apply light pressure to the canoe clip on counter cover while winding springs.

Using a power drill (high torque/gear reduced to 1300 RPM preferred) with a 7/16" socket, carefully rotate right hand winding bolt clockwise, until counter shows 2-3 turns.

This will keep the counterbalance cable taut while adjusting the left hand side counterbalance cable. Adjust left hand counterbalance cable tension. (refer to Step 30)

NOTE: Single spring applications require no spring winding on left hand side, but need cable tension adjusted.

NOTE: Ensure counterbalance cable tension is equal for both sides prior to fully winding spring(s) to appropriate number of turns. If cable tension is unequal refer to Step 30.



32 Setting Spring Tension

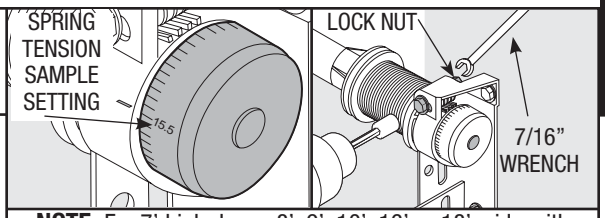
Tools Needed:

Power Drill

7/16" Socket Driver

7/16" Wrench

NOTE: Apply light pressure to the canoe clip on the counter cover while winding spring(s).
See the **Spring Turn** chart.
For **SINGLE SPRING** applications, return to the right hand side and carefully rotate the winding bolt head clockwise until the counter shows the correct number of turns for your door.
For **DOUBLE SPRING** applications, remain on the left hand side and carefully rotate the winding bolt head clockwise until the counter shows the correct number of turns for your door. Then return to the right hand side and wind the right hand spring to the required number of turns.
IMPORTANT: DO NOT OVERWIND.
After spring is wound, hold the lock nut (in back of end bracket) stationary on the right hand side with a 7/16" wrench while rotating the winding bolt clockwise until snug. Tightening of the lock nut prevents spring from unwinding. Repeat for opposite side for double spring TorqueMaster® systems.
IMPORTANT: CAUTIOUSLY REMOVE VICE CLAMPS FROM VERTICAL TRACKS. ADJUSTMENTS TO THE RECOMMENDED NUMBER OF TURNS MAY BE REQUIRED. AFTER REAR SUPPORT ASSEMBLY IS COMPLETE (STEP 34), CHECK DOOR BALANCE. IF DOOR RAISES OFF FLOOR UNDER SPRING TENSION ALONE, REDUCE SPRING TENSION UNTIL DOOR RESTS ON THE FLOOR. IF THE DOOR IS HARD TO RAISE OR DRIFTS DOWN ON ITS OWN, ADD SPRING TENSION. AN UNBALANCED DOOR SUCH AS THIS CAN CAUSE IDRIVE® OPERATION PROBLEMS.



NOTE: For 7' high doors, 8', 9', 10', 16' or 18' wide with windows, the recommended number of spring turns is 15.

RECOMMENDED SPRING TURNS

Door Height	*i*drive® Operated Doors 11'-11" Wide or Less	Manually Operated Door, and *i*drive® Operated Doors 12' Wide or Greater
6'-0"	13-1/2	14
6'-3"	14	14-1/2
6'-5"	14-1/2	15
6'-6"	14-1/2	15
6'-8"	15	15-1/2
6'-9"	15	15-1/2
7'-0"	15-1/2	16
7'-3"	16	16-1/2
7'-6"	16-1/2	17
7'-9"	17	17-1/2
8'-0"	17-1/2	18

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33

Drum Wrap Installation

Tools Needed:

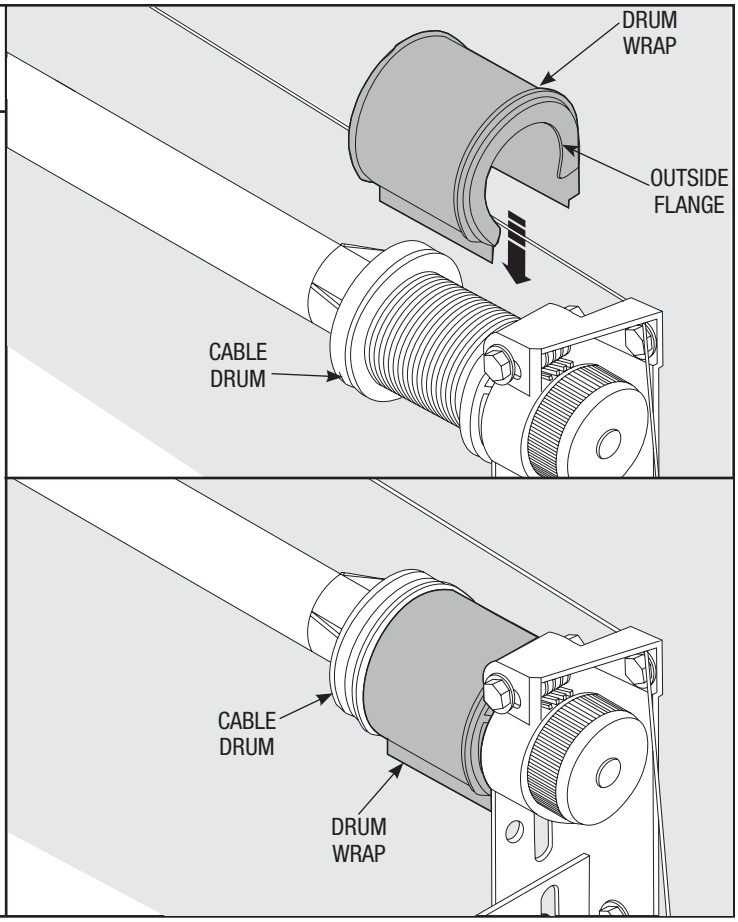
None

Drum wraps are identified as right and left hand.

To install, place the drum wrap over the cable drum and under the *i*drive® disconnect cable (right hand side). Align the outside flange over the outside edge of the cable drum and push the drum wrap down onto the cable drum. Repeat for left hand side.

NOTE: Drum wraps must be installed to prevent cable from becoming tangled.

IMPORTANT: RIGHT AND LEFT HAND ARE ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.



34

Rear Support

Tools Needed:

Ratchet Wrench

1/2" Socket

1/2" Wrench

(2) Vice Clamps

Tape Measure

Level

Hammer

⚠ WARNING

KEEP HORIZONTAL TRACK PARALLEL AND WITHIN 3/4" MAXIMUM OF DOOR EDGE, OTHERWISE DOOR COULD FALL, RESULTING IN SEVERE INJURY OR DEATH.

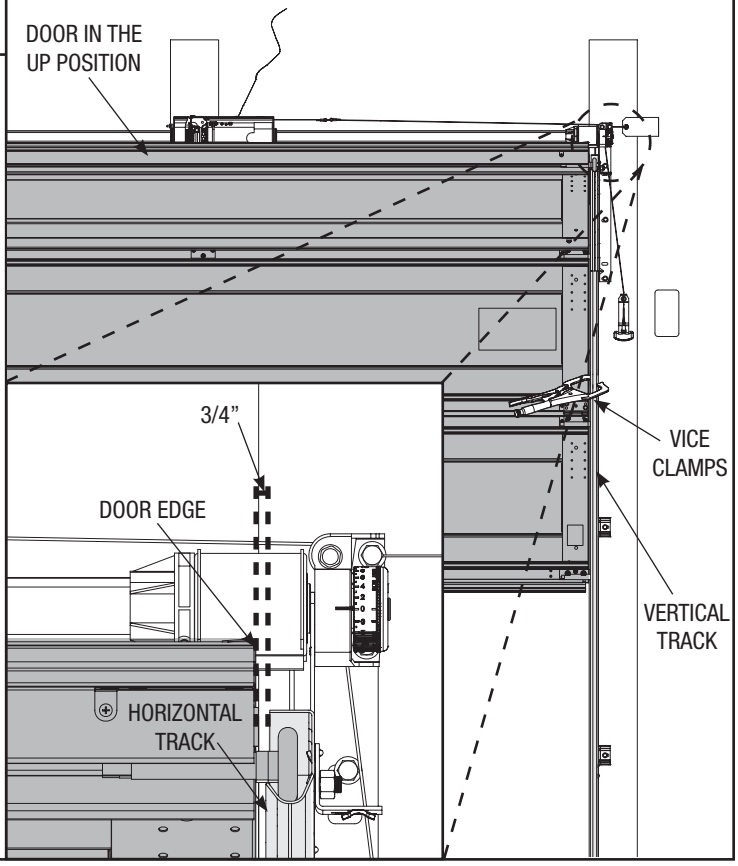
Raise the door until the top section and half of the next section are in a horizontal position. Do not raise door any further since rear of horizontal track is not yet supported.

⚠ WARNING

RAISING DOOR FURTHER CAN RESULT IN DOOR FALLING AND CAUSE SEVERE INJURY OR DEATH.

Clamp a pair of vice clamps on the vertical tracks just above the second roller on one side, just below the second roller on the other side. This will prevent the door from raising or lowering while installing the rear support.

Using perforated angle, 5/16" x 1-5/8"



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Rear Support Continued...

Tools Needed:

hex head lag screws and 5/16” bolts with nuts (may not be supplied), fabricate rear support for horizontal tracks. Attach horizontal tracks to the rear supports with 5/16”-18 x 1-1/4” hex bolts and nuts (may not be supplied). Horizontal tracks must be level and parallel with door.

NOTE: If rear supports are to be installed over drywall, use 5/16” x 2” hex head lag screws.

NOTE: If an *i*drive® opener will be installed, position horizontal tracks one hole above level when securing it to rear supports.

Adjust weather seal (if necessary). Permanently attach the weather seal to both door jambs and header. (Temporarily attached in PREPARING THE OPENING on page 10.) Avoid pushing weather seal too tightly against face of door.

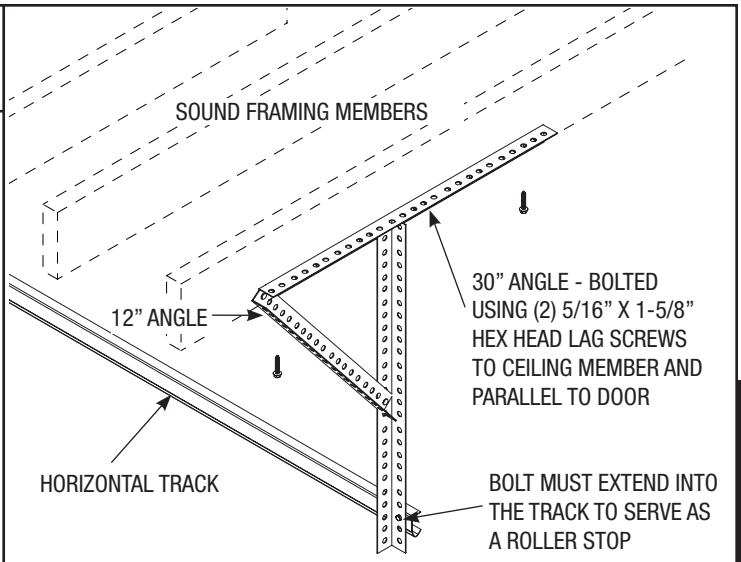
Now, lift door and check it’s balance. Adjust, if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). Anytime spring adjustments are made you must loosen the lock nuts and retighten both lock nuts afterwards. To adjust spring(s), only add or remove 1/4 turn on the counter at a time. Adjust both sides equally.

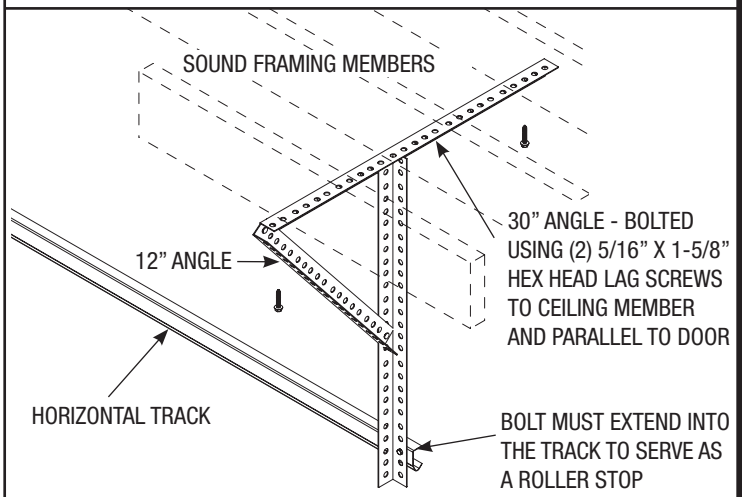
IMPORTANT: DO NOT ADD OR REMOVE MORE THAN 1 SPRING TURN FROM SPECIFIED AMOUNT. IF THE DOOR STILL DOES NOT OPERATE EASILY, LOWER THE DOOR INTO THE CLOSED POSITION, UNWIND SPRING(S) TO ZERO, AND RECHECK THE FOLLOWING ITEMS:

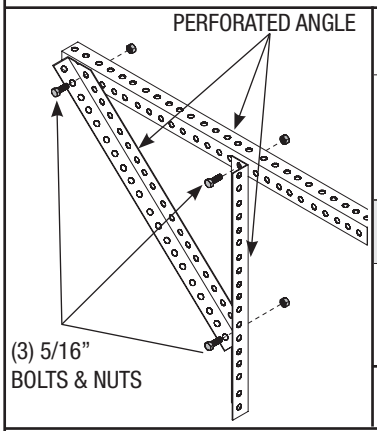
1.) Check the door for level.
2.) Check the TorqueMaster® spring tube and flagangles for level and plumb.
3.) Check the distance between the flagangles - must be door width plus 3-3/8” to 3-1/2”.
4.) Check the counterbalance cables for equal tension - adjust if necessary.
5.) Rewind the spring(s).
6.) Make sure door isn’t rubbing on jambs.

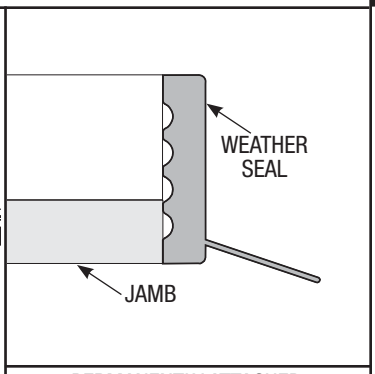
NOTE: As a safety feature, the right hand end bracket cannot be disassembled for service until the spring is completely unwound and the counter cover reads zero.

After door installation is completed, refer to the *i*drive® owner’s manual.

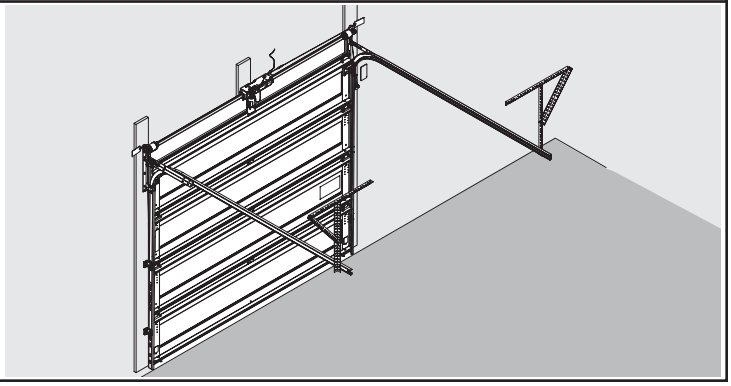

SOUND FRAMING MEMBERS
12” ANGLE
30” ANGLE - BOLTED USING (2) 5/16” X 1-5/8” HEX HEAD LAG SCREWS TO CEILING MEMBER AND PARALLEL TO DOOR
HORIZONTAL TRACK
BOLT MUST EXTEND INTO THE TRACK TO SERVE AS A ROLLER STOP


SOUND FRAMING MEMBERS
12” ANGLE
30” ANGLE - BOLTED USING (2) 5/16” X 1-5/8” HEX HEAD LAG SCREWS TO CEILING MEMBER AND PARALLEL TO DOOR
HORIZONTAL TRACK
BOLT MUST EXTEND INTO THE TRACK TO SERVE AS A ROLLER STOP





PERMANENTLY ATTACHED WEATHER SEAL OR DOOR STOP



INSTALLATION

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Side Lock

Tools Needed:

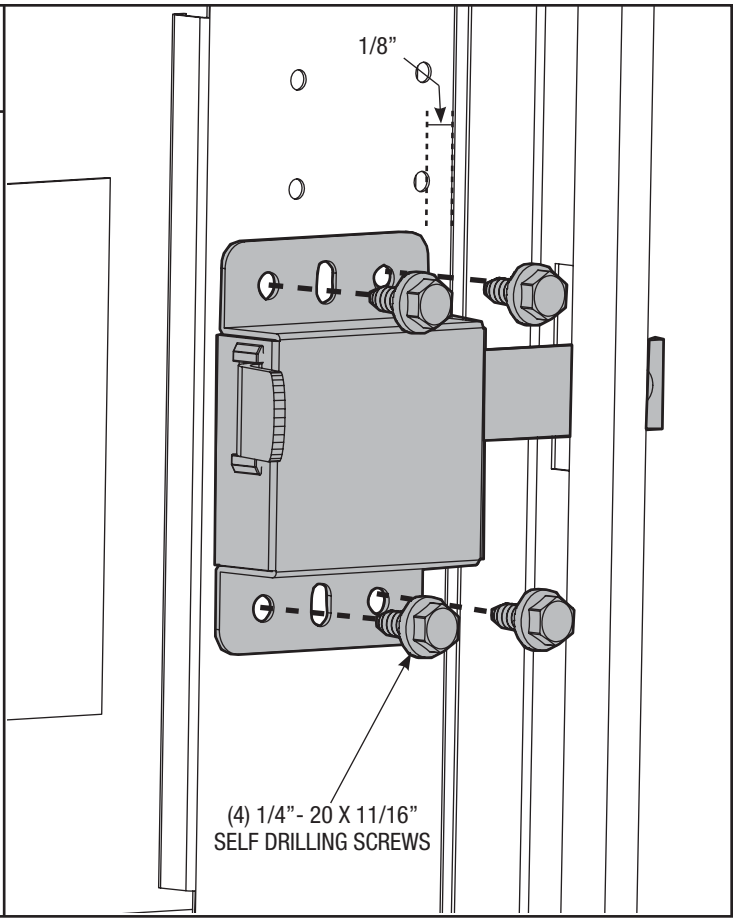
Power Drill

7/16” Socket Driver

Install the side lock on the second section of the door. Secure the lock to the section with (4) 1/4”- 20 x 11/16” self drilling screws. Square the lock assembly with the door section and align with the square hole in the vertical track. The side lock should be spaced approximately 1/8” from the section edge.

IMPORTANT: SIDE LOCKS MUST BE REMOVED OR MADE INOPERATIVE IN THE UNLOCKED POSITION IF AN OPERATOR IS INSTALLED ON THE DOOR.

NOTE: After completing this step, continue with Step 9 on page 15.



DoorMaster™ Bracket

Tools Needed:

None

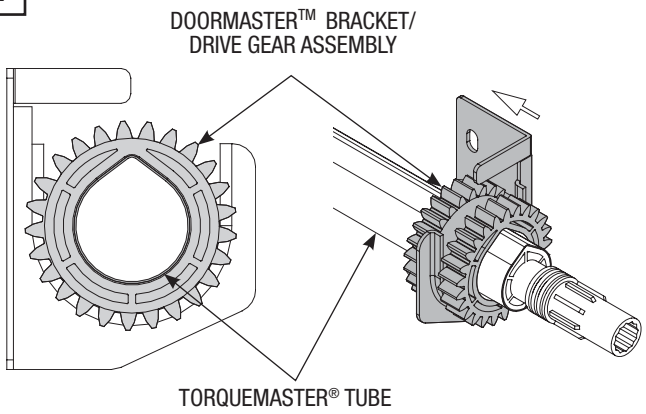
A

NOTE: When installing a DoorMaster™ operator use the center bracket and drive gear supplied with your operator (located in DoorMaster™ package).

Slide the DoorMaster™ bracket/drive gear assembly onto the TorqueMaster® spring tube, so that the drive gear/center bracket assembly are in the center of the TorqueMaster® spring tube.

NOTE: After completing this step, continue with Step 20 on page 22.

A



Tools Needed:

Power Drill

1/8” Drill Bit

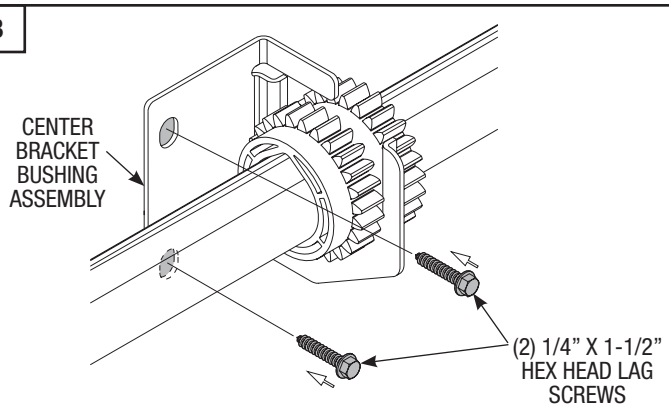
7/16” Socket Driver

B

To locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster® spring tube. Drill 1/8” pilot holes into header for the lag screws. Fasten the metal bracket to the header using (2) 1/4” x 1-1/2” lag screws.

NOTE: After completing this step, continue with Step 29 on page 28.

B



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Step Plate

Tools Needed:

7/16” Drill Bit

Power Drill

7/16" Wrench

Make one mark 1” (25 mm) up from the center of bottom edge of the bottom section and another mark 2-3/16” (56 mm) up from the first mark.

Drill a 7/16” (11 mm) hole through the section at each mark and insert the outside step plate.

Loosely fasten step plate slide to base with (1) 1/4” - 20 x 5/8” carriage bolt and nut.

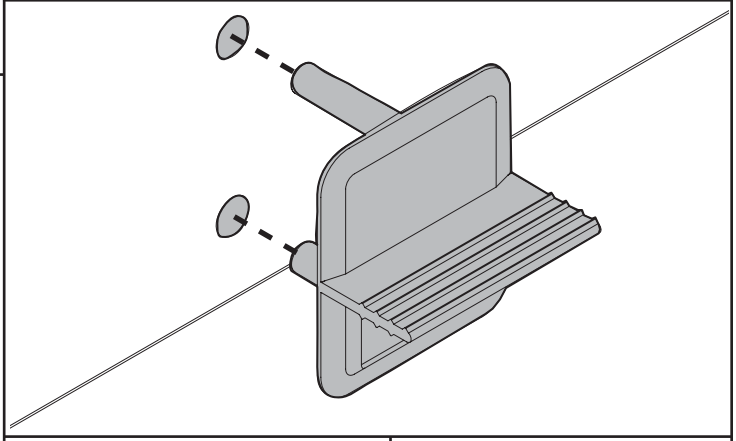
Align inside step plate holes and fasten from inside using the #8 screws provided. Install one #8 x 3/4” screw in the bottom step plate hole. The screw in the top hole varies with door models.

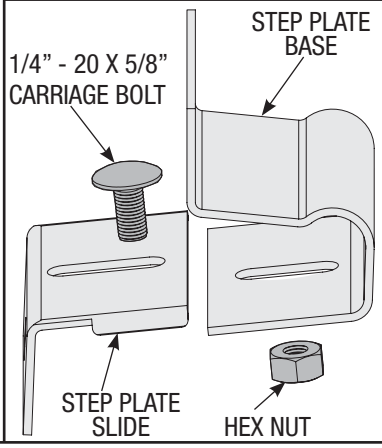
Use the screw size shown below for your model door.

a) #8 x 3/4” screw for Model 9100
b) #8 x 1” screw Model 9400/9600

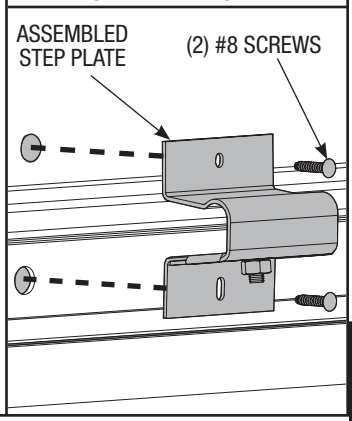
Tighten 1/4” - 20 carriage bolt and nut.

STEP PLATE OUTSIDE





STEP PLATE INSIDE



Pull Rope

Tools Needed:

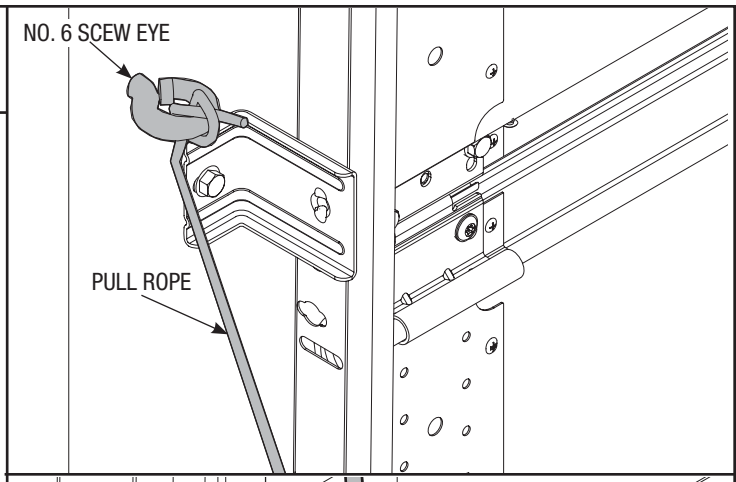
Power Drill

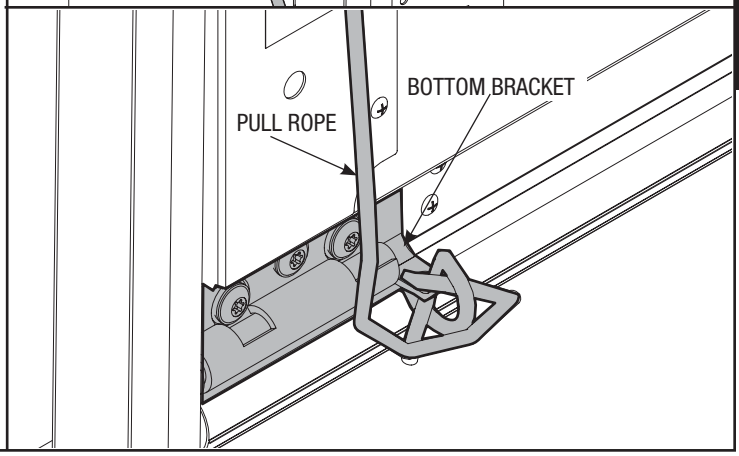
1/8” Drill Bit

⚠ WARNING

DO NOT INSTALL PULL ROPES ON DOORS WITH ELECTRIC OPERATORS. CHILDREN MAY BECOME ENTANGLED IN THE ROPE CAUSING SEVERE OR FATAL INJURY.

Measure and mark the jamb approximately 48” to 50” (1220 to 1270 mm) from floor on the right or left side of jamb. Drill 1/8” pilot hole for No. 6 screw eye. Tie the pull rope to the No. 6 screw eye and to the bottom bracket as shown.





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Trolley Installation for Standard Lift

Measure the curved ends of the horizontal track to determine if you have a 12” or 15” radius horizontal track, as shown in FIG. 2.1. Determine center line of door. Mark vertical line at this point, on the header wall. Raise the door slightly until the top section reaches the highest point of travel (high arc). Using a level, mark this high arc point of travel on the header wall, intersecting the vertical center line, as shown in FIG. 2.2 through 2.3. Hold the wall bracket’s bottom edge to the appropriate 1/2” - 1” (room permitting) above of the high arc line and centered on the vertical line, as shown in FIG. 2.3. Spot the wall brackets mounting holes on the header wall and then refer to your garage door operator manual for pre-drilling and securing the wall bracket to header. Using the OPERATOR HOOK-UP CHARTS, refer to referenced illustrations in FIG. 2.4 through FIG. 2.5 for correct arm hook-up from trolley to operator bracket.

NOTE: Refer to your operator manual for specific details on how to assembly the curved and straight arm, as shown in FIG. 2.4 through FIG. 2.5.

NOTE: Depending on your setup, you may or may not have to cut straight arm to accomplish trolley settings, as shown in FIG. 2.4 through FIG. 2.5.

Attach door arm to trolley and align the appropriate door arm hole with the hole in the door operator bracket. Insert (1) hex head bolt through hole of operator bracket and door arm. Install (1) LOCKING hex nut and just tighten until snug.

⚠ WARNING

FAILURE TO USE LOCKING NUT CAN RESULT IN ARM RE-LEASING AND POSSIBLE RESULTING IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

QUANTUM AND CLASSIC OPERATORS REQUIRE:
(1) 3/8” - 16 x 1” hex bolt and (1) 3/8” - 16 LOCKING hex nut, as shown in FIG. 2.6.

LINEAR, LIFTMASTER (SEARS), GENIE OPERATORS REQUIRE:
(1) 5/16” - 18 x 1” hex bolt and (1) 5/16” - 18 LOCKING hex nut, as shown in FIG. 2.6.

DETERMINE THE WAYNE-DALTON TRACK RADIUS BEING USED:

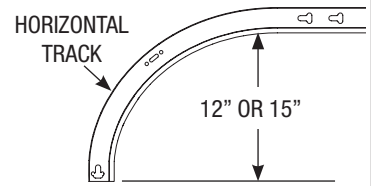

FIG. 2.1

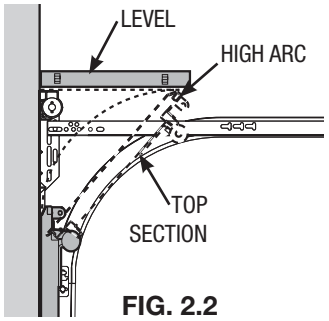

FIG. 2.2

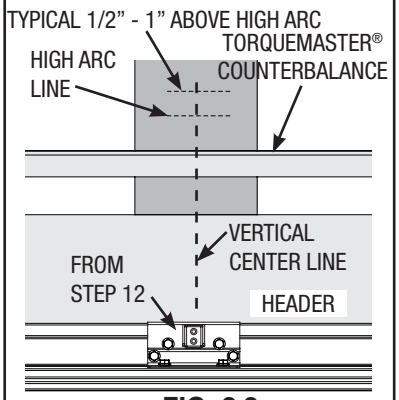

FIG. 2.3

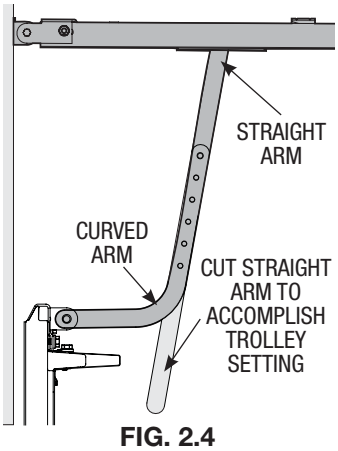

FIG. 2.4

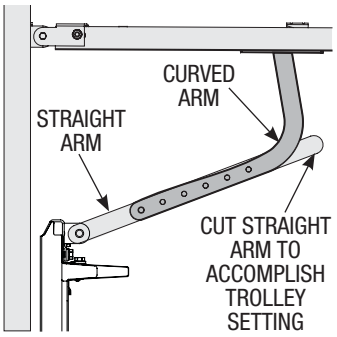

FIG. 2.5

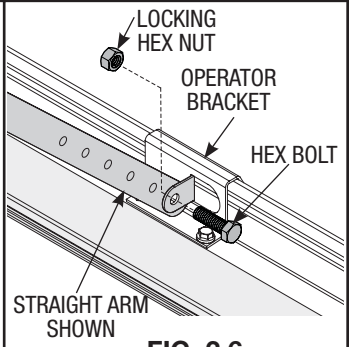

FIG. 2.6

OPERATOR HOOK-UP CHART STANDARD LIFT FOR 12” RADIUS		
OPERATOR MODELS	TYPE OF ARM BEING USED	REF. ILLUSTRATIONS ABOVE
QUANTUM/CLASSIC	CURVED / STRAIGHT	**FIG. 2.5**
LINEAR	STRAIGHT / CURVED	**FIG. 2.4**
LIFTMASTER (SEARS)	CURVED / STRAIGHT	**FIG. 2.5**
GENIE	CURVED / STRAIGHT	**FIG. 2.5**

OPERATOR HOOK-UP CHART STANDARD LIFT FOR 15” RADIUS		
OPERATOR MODELS	TYPE OF ARM BEING USED	REF. ILLUSTRATIONS ABOVE
QUANTUM/CLASSIC	CURVED / STRAIGHT	**FIG. 2.5**
LINEAR	STRAIGHT / CURVED	**FIG. 2.4**
LIFTMASTER (SEARS)	CURVED / STRAIGHT	**FIG. 2.5**
GENIE	CURVED / STRAIGHT	**FIG. 2.5**

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Trolley Installation for Low Headroom

Determine center line of door. Mark vertical line at this point, on the header wall. Raise the door slightly until the top section reaches the highest point of travel (high arc). Using a level, mark this high arc point of travel on the header wall, intersecting the vertical center line, as shown in FIG. 3.1 through 3.2. Hold the wall bracket's bottom edge to the appropriate 1/2" - 1" (room permitting) above of the high arc line and centered on the vertical line, as shown in FIG. 3.2. Spot the wall brackets mounting holes on the header wall and then refer to your garage door operator manual for pre-drilling and securing the wall bracket to header. Using the OPERATOR HOOK-UP CHARTS, refer to referenced illustrations in FIG. 3.3 through FIG. 3.4 for correct arm hook-up from trolley to operator bracket.

NOTE: Refer to your operator manual for specific details on how to assembly the curved and straight arm, as shown in FIG. 3.3 through FIG. 3.4.

NOTE: Depending on your setup, you may or may not have to cut straight arm to accomplish trolley settings, as shown in FIG. 3.3 through FIG. 3.4.

Attach door arm to trolley and align the appropriate door arm hole with the hole in the door operator bracket. Insert (1) hex head bolt through hole of operator bracket and door arm. Install (1) LOCKING hex nut and just tighten until snug.

⚠ WARNING

FAILURE TO USE LOCKING NUT CAN RESULT IN ARM RE-LEASING AND POSSIBLE RESULTING IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

QUANTUM AND CLASSIC OPERATORS REQUIRE:
(1) 3/8" - 16 x 1" hex bolt and (1) 3/8" - 16 LOCKING hex nut, as shown in FIG. 3.5.

LINEAR, LIFTMASTER (SEARS), GENIE OPERATORS REQUIRE:
(1) 5/16" - 18 x 1" hex bolt and (1) 5/16" - 18 LOCKING hex nut, as shown in FIG. 3.5.

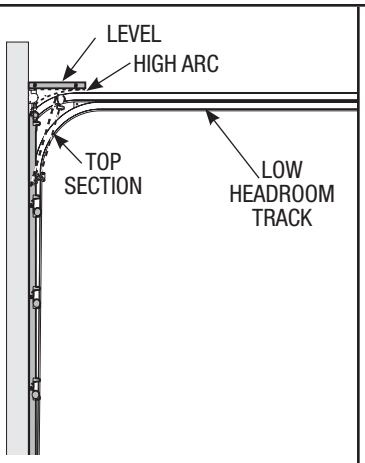

FIG. 3.1

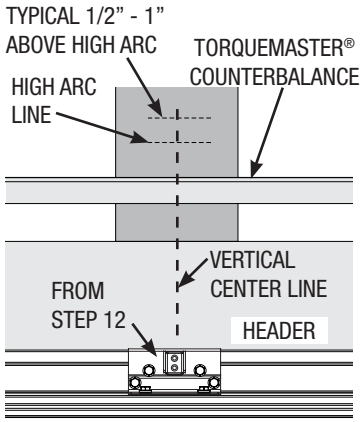

FIG. 3.2

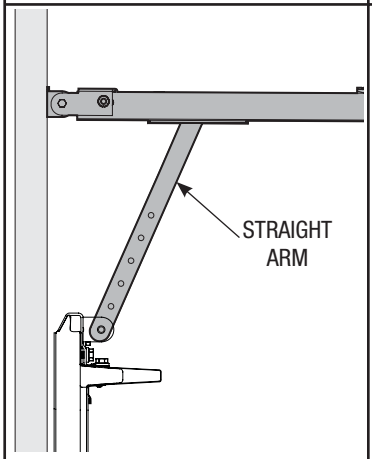

FIG. 3.3

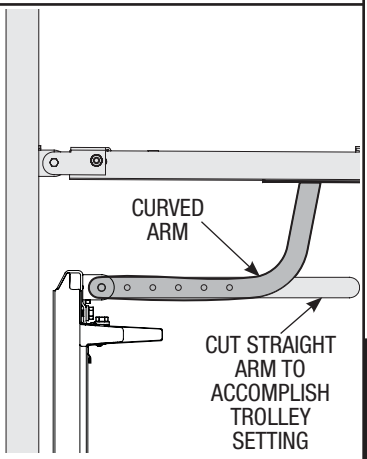

FIG. 3.4

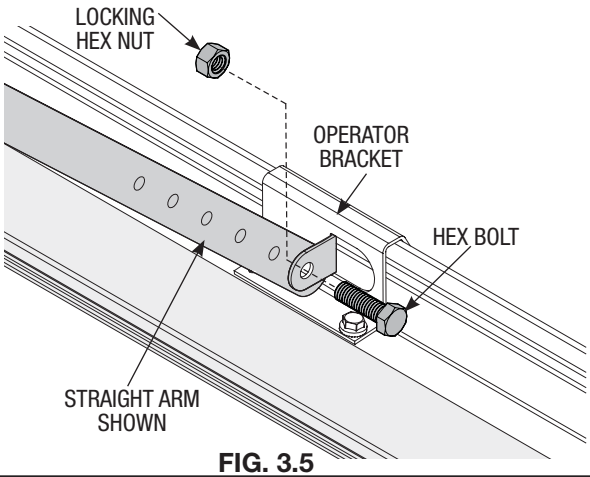

FIG. 3.5

OPERATOR HOOK-UP CHART FOR LOW HEADROOM				
OPERATOR MODELS	TYPE OF ARM BEING USED			
	PREFERRED HOOKUP	REF. ILLUSTRA-TIONS ABOVE	OPTIONAL HOOKUP	REF. ILLUSTRA-TIONS ABOVE
QUANTUM/CLASSIC	CURVED / STRAIGHT	**FIG. 3.4**	STRAIGHT	**FIG. 3.3**
LINEAR	STRAIGHT	**FIG. 3.3**	N/A	**N/A**
LIFTMASTER (SEARS)	CURVED / STRAIGHT	**FIG. 3.4**	STRAIGHT	**FIG. 3.3**
GENIE	CURVED / STRAIGHT	**FIG. 3.4**	STRAIGHT	**FIG. 3.3**

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Trolley Operator

Tools Needed:

⚠ WARNING

OPERATOR MUST BE TESTED AT TIME OF INSTALLATION AND MONTHLY THEREAFTER TO ENSURE THAT DOOR REVERSES ON CONTACT WITH 2 X 4 BOARD LAID FLAT UNDER THE DOOR. FAILURE TO ADJUST OPERATOR, IF NECESSARY, CAN RESULT IN SEVERE OR FATAL INJURY. IF YOUR OPERATOR IS EQUIPPED WITH A PHOTOELECTRIC EYE SYSTEM, THEN THIS MUST BE TESTED AT THE SAME TIME TO ENSURE THAT DOOR DOES NOT CLOSE AND A CLOSING DOOR OPENS IF PHOTOELECTRIC EYE SYSTEM IS OBSTRUCTED. FAILURE TO MAKE ADJUSTMENTS, IF NECESSARY, CAN RESULT IN SEVERE OR FATAL INJURY.

1. Install operator rail 1/2" to 1-1/2" (13 - 38 mm) above high arc of top section of the door.

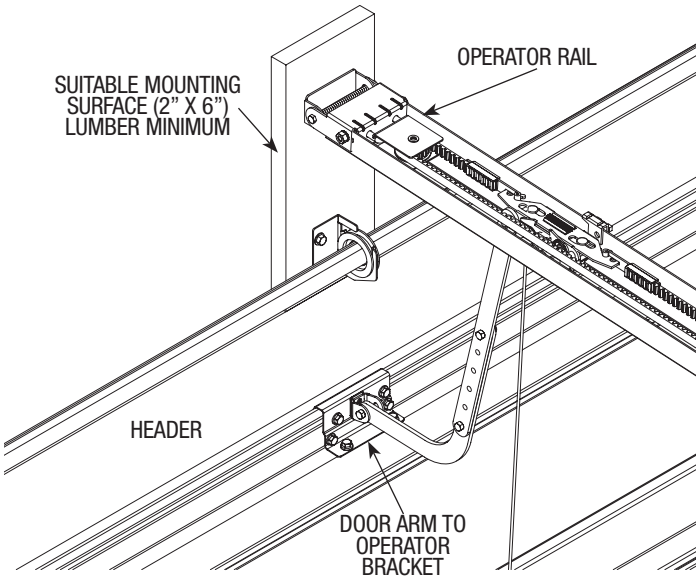
2. Mount operator to ceiling so that 1" to 1-1/2" (25 - 38 mm) clearance is maintained between trolley rail and top section when door is fully open (trolley rail will slope down towards rear).

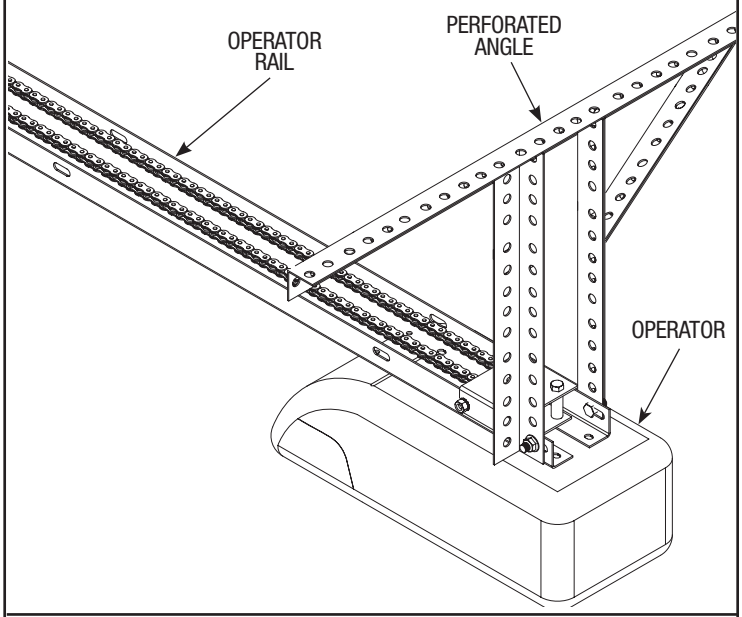
3. Attach door arm to operator bracket installed in Step 12.

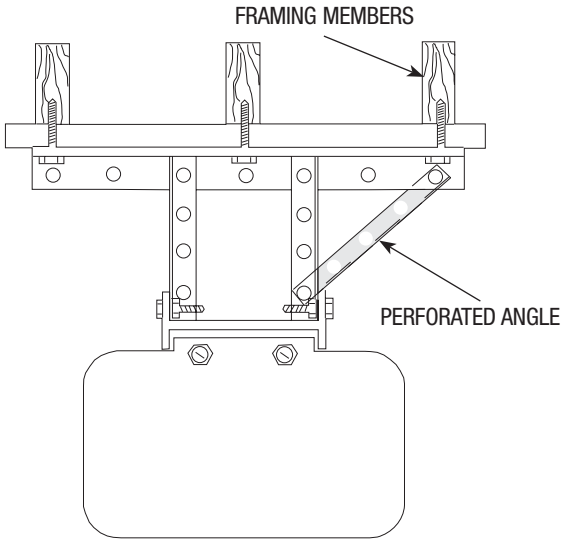
4. Attach operator to a suitable mounting surface (2" x 6") lumber minimum.

5. Attach operator to ceiling using perforated angle.

IMPORTANT: ANGLE MUST BE ATTACHED TO FRAMING MEMBER(S).







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Cleaning

Cleaning Your Garage Door

IMPORTANT: DO NOT USE A PRESSURE WASHER ON YOUR GARAGE DOOR!

While factory-applied finishes on garage doors are durable, it is desirable to clean them on a routine basis. Some discoloration of the finish may occur when a door has been exposed to dirt-laden atmosphere for a period of time. Slight chalking may also occur as a result of direct exposure to sunlight.

Cleaning the door will generally restore the appearance of the finish. To maintain an aesthetically pleasing finish of the garage door, a periodic washing of the garage door is recommended.

The following cleaning solution is recommended
A mild detergent solution consisting of one cup detergent (with less than 0.5% phosphate) dissolved into five gallons of warm water will aid in the removal of most dirt.

NOTE: The use of detergents containing greater than 0.5% phosphate is not recommended for use in general cleaning of garage doors.

NOTE: Be sure to clean behind weather stripping on both sides and top of door.

CAUTION: NEVER MIX CLEANSERS OR DETERGENTS WITH BLEACH.

GLASS CLEANING INSTRUCTIONS
Clean with a mild detergent solution (same as above) and a soft cloth. After cleaning, rinse thoroughly.

ACRYLIC CLEANING INSTRUCTIONS
Clean acrylic glazing with nonabrasive soap or detergent and plenty of water. Use your bare hands to feel and dislodge any caked on particles. A soft, grit-free cloth, sponge or chamois may be used to wipe the surface. Do not use hard or rough cloths that will scratch the acrylic glazing. Dry glazing with a clean damp chamois.

NOTE: DO NOT USE any window cleaning fluids, scouring compounds, gritty cloths or solvent-based cleaners of any kind.

Painting

Surface Preparation for Painting
Wax on the surface must be removed or paint peeling/flaking will result. To remove this wax, it will be necessary to lightly scuff the surface with a fine steel wool pad, saturated with soapy water. A final wipe and rinse should be done with clean water only, to remove any loose particles and any soapy film residue.

Surface scratches, which have not exposed the metal substrate, can be lightly buffed or sanded with 0000 steel wool or No. 400 sand paper to create a smoother surface. Care must be taken to not expose the substrate under the paint. Once the substrate is exposed, the likelihood for rusting is greatly increased.

If substrate is exposed, it must be treated to prevent rust from forming. Sand the exposed area lightly and paint with a high quality metal primer, specifically intended for galvanized surfaces, to protect the area from corrosion. Allow for drying time on primer can label before applying topcoat. The surface of the factory-applied finish, that is being painted, must not be too smooth, or the paint will not adhere to it. It is advisable to test in an inconspicuous area, to evaluate adhesion. If poor adhesion is observed, surface preparation for painting the factory-applied finish must be repeated until desired results are achieved. Again, care must be taken to not expose the substrate under the paint.

Painting
After surface has been properly prepared, it must be allowed to dry thoroughly, and then coated immediately with premium quality latex house paint. Follow paint label directions explicitly. Oil base or solvent base paints are not recommended. Please note that if substrate is exposed and not properly primed, painting with latex paint may cause accelerated rusting of the steel in the exposed area.

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Painting Continued....

NOTES:

1. Repainting of finish painted steel doors cannot be warranted, as this condition is totally beyond the door manufacturer's control.

2. Consult a professional coatings contractor if in doubt about any of the above directions.

3. Follow directions explicitly on the paint container labels for proper applications of coatings and disposal of containers. Pay particular attention to acceptable weather and temperature conditions in which to paint.

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Lifetime Limited Warranty
Models 9100, 9400, 9600

Subject to the terms and conditions contained in this Lifetime Limited Warranty, Wayne-Dalton Corp. ("Manufacturer") warrants the sections of the door, which is described at the top of this page, **for as long as you own the door** against:

(i) The door becoming inoperable due to rust-through of the steel skin from the core of the door section, due to cracking, splitting, or other deterioration of the steel skin, or due to structural failure caused by separation or degradation of the foam insulation.

(ii) Peeling of the original paint on the door as a result of a defect in the original paint or in the application of the original paint coating, in cases where the door sections and the original paint: (a) have not been subjected to adverse atmospheric conditions or contaminates (such as salt water or other marine environment, or to toxic or abrasive substances, including those in the air); (b) have been maintained in compliance with Manufacturer's recommendations; and (c) have not been subject to physical abrasion, impacted by a hard object, or punctured (including without limitation "paint rub" occurring in metal to metal contact and movement).

The Manufacturer warrants the garage door hardware (except springs) and the tracks of the above-described door, **for as long as you own the door**, against defects in material and workmanship, subject to all the terms and conditions below.

The Manufacturer warrants those component parts of the door not covered by the preceding provisions of this Lifetime Limited Warranty against defects in material and workmanship for a period of **ONE (1) YEAR** from the date of installation.

After a period of **twenty (20) years**, from time of installation, replacement of Lifetime Limited Warranty materials will be pro-rated at 50 per cent of Manufacturer's published list pricing at time of claim, and you must pay this amount.

This Limited Warranty is extended only to the person who purchased the product and continues to own the premises (where the door is installed) as his/her primary residence ("Buyer"). This Limited Warranty does not apply to residences other than primary, or to commercial or industrial installations, or to installations on rental property (even when used by a tenant as a residence). This Limited Warranty is not transferable to any other person (even when the premises is sold), nor does it extend benefits to any other person.

The Manufacturer will not be responsible for any damage attributable to improper storage, improper installation, or any alteration of the door or its components, abuse, damage from corrosive fumes or substances, salt spray or saltwater air, fire, Acts of God, failure to properly maintain the door, or attempt to use the door, its components or related products for other than its intended purpose and its customary usage. This Limited Warranty does not cover ordinary wear. This Limited Warranty will be voided if the original finish is painted over, unless Manufacturer's preparation and painting instructions are followed explicitly. This Limited Warranty will be voided if any holes are drilled into the door, other than those specified by the Manufacturer.

THIS LIMITED WARRANTY COVERS A CONSUMER PRODUCT AS DEFINED BY THE MAGNUSON-MOSS ACT. NO WARRANTIES, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) WILL EXTEND BEYOND THE TIME PERIOD SET FORTH IN **UNDERSCORED BOLD FACE TYPE** IN THIS LIMITED WARRANTY, ABOVE.

- Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Any claim under this Limited Warranty must be made in writing, within the applicable warranty period, to the dealer from which the product was purchased. Unless the dealer is no longer in business, a written claim to the Manufacturer will be the same as if no claim had been made at all.

At the Manufacturer's option, a service representative may inspect the product on site, or Buyer may be required to return the product to the Manufacturer at Buyer's expense. Buyer agrees to cooperate with any representative of the Manufacturer and to give such representative full access to the product with the claimed defect and full access to the location of its installation.

If the Manufacturer determines that the claim is valid under the terms of this Limited Warranty, the Manufacturer will repair or replace the defective product. The decision about the manner in which the defect will be remedied will be at the discretion of the Manufacturer, subject to applicable law. THE REMEDY WILL COVER ONLY MATERIAL. THIS LIMITED WARRANTY DOES NOT COVER OTHER CHARGES, SUCH AS FIELD SERVICE LABOR FOR REMOVAL, INSTALLATION, PAINTING, SHIPPING, ETC.

Any repairs or replacements arranged by Manufacturer will be covered by (and subject to) the terms, conditions, limitations and exceptions of this Limited Warranty; *provided*, *however*, that the installation date for the repaired or replaced product will be deemed to be the date the original product was installed, and this Limited Warranty will expire at the same time as if there had been no defect. If a claim under this Limited Warranty is resolved in a manner other than described in the immediately preceding paragraph, then neither this Limited Warranty nor any other warranty from the Manufacturer will cover the repaired or replaced portion of the product.

THE REMEDIES FOR THE BUYER DESCRIBED IN THIS LIMITED WARRANTY ARE EXCLUSIVE and take the place of any other remedy. The liability of the Manufacturer, whether in contract or tort, under warranty, product liability, or otherwise, will not go beyond the Manufacturer's obligation to repair or replace, at its option, as described above. THE MANUFACTURER WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, including (but not limited to) damage or loss of other property or equipment, personal injury, loss of profits or revenues, business or service interruptions, cost of capital , cost of purchase or replacement of other goods, or claims of third parties for any of the foregoing.

- Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

No employee, distributor, dealer, representative, or other person has the authority to modify any term or condition contained in this Limited Warranty or to grant any other warranty on behalf of or binding on the Manufacturer, and anyone's attempt to do so will be null and void.

Buyer should be prepared to verify the date of installation to the satisfaction of the Manufacturer.

The rights and obligations of the Manufacturer and Buyer under this Limited Warranty will be governed by the laws of the State of Ohio, USA, to the extent permitted by law.

- This Limited Warranty gives you specific legal rights and you may also have other rights, which may vary from State to State.

Please Do Not Return This Product To The Store. Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local yellow pages/business listings or go to the **Find a Dealer** section online at **www.wayne-dalton.com**

Covered by one or more of the following Patents 5,259,143; 5,408,724; 5,409,051; 5,419,010; 5,495,640; 5,522,446; 5,562,141; 5,566,740; 5,568,672; 5,718,533; 5,720,142; 5,836,499; 5,914,078; 6,019,269; 6,089,304; 6,442,897 Other US and Foreign Patents pending.

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Thank you for your purchase